THE
MEDICAL AND SURGICAL REPORTER

No. 1660. PHILADELPHIA, DECEMBER 22, 1888. Vol. LIX.—No. 25.

Clinical Lecture.

ANTERIOR URETHROTOMY FOR GLEET.

BY EDWARD L. KEYES, M.D.,
PROFESSOR OF GENITO URINARY SURGERY, SYPHILOLOGY AND DERMATOLOGY IN BELLEVUE HOSPITAL MEDICAL COLLEGE, NEW YORK.

Gentlemen: Anterior urethrotomy, especially for the treatment of gleet, is the subject which we will consider to-day. There will be little time to devote to the cases operated upon a week ago—hydrocele and phimosis—for the subject of anterior urethrotomy is veiled in so great obscurity, there is such marked difference of opinion regarding its indications, that an hour will prove too short more than to mention the disputed points. The operation itself is a trifling matter; it is very simple to perform, but when to resort to it is a question of more difficult solution.

First, however, I will present you the young man on whom I operated last week for varicocele. He had no trouble after the operation; no medicine was administered. He simply lay abed four or five days, and the result has been perfect. He is practically cured; the scrotal veins will no longer serve as broad receptacles for undue quantities of blood. In my judgment this man required but one ligature around the veins returning from the testicle. Some cases require as many as three ligatures, one near the inguinal canal, another near the globus major, and a third underneath the globus minor. Twisted silk should be employed, disinfected, and tied as tightly as your strength will permit. This case is a practical demonstration of the moderate amount of reaction which follows the operation. Frequently there is more exudation and inflammatory deposit about where the vein has been tied, the tumor amounting in size at times to that of an English walnut. But it does not suppurate. I have seen but one case in which suppuration resulted among probably a hundred operated on, and in that one the ligature came away. In another there was some serous exudation for a few days, but it did not go on to suppuration.

We will now pass to the subject for our especial consideration to-day, and presumably we have an illustrative case before us, although I have not yet had opportunity to examine the man. The subject is that of internal urethrotomy for anterior stricture of large calibre, not of small calibre. It has become customary to speak of urethral symptoms, or symptoms having their origin in the urethra, as if they were diseases. Now, a symptom manifesting itself from the urethra is no more a disease than a symptom in any other part of the body. If someone whose friend had a cough should ask you what is good for a cough, you would answer that there is no such disease as cough. But if another man whose friend had a gleet should ask what is good for a gleet, you would, according to the modern method, reply that he should have his strictures cut. It has become the practice in cases of gleet to liberate the urethra of any tight points or narrowings in its course with the view of thereby curing the gleet. But in my opinion such teaching and practice are not sound. You might as well say that the proper treatment of cough is the use of cod liver oil, or of iodide of potassium, going

South, etc. There is no such disease as cough, and there is, truly speaking, no such disease as gleet. A man may have a chronic urethral discharge, called gleet, due to a tuberculous condition of the kidneys, or disease of the seminal vesicles, or prostatic disturbance, etc., and the mistake be made of dividing certain narrowings of the urethral canal which are altogether physiological for the cure of the gleet. These narrowings are found: at the orifice; within a third of an inch of the orifice, the distance varying somewhat with the variations in the size of the penis (this is sometimes called the false meatus); another distant between two and four inches from the orifice; another at the bulbo-membranous junction. In other words, the urethra is narrow at the meatus, then large, then narrow, then large, then narrow, and again large. It seems to me the reason for these narrowings is physiological. The orifice is narrowed in order that the individual may be able to throw a smooth stream, not a scattering one, and clear itself. Inside of the smaller orifice there is a sinus which corresponds to the expansion of the glans penis, and is found wherever there is much erectile tissue about the canal. Then the urethra is narrower until between the second and third inch from the orifice, when it becomes further narrowed; after which the sinus of the bulb is reached. Here the canal is surrounded by the greatest amount of erectile tissue, and a distinct pouch exists, the object of which is to catch the last few drops of urine expelled from the bladder at the close of micturition. The spasmodic contraction of all the muscles which bear upon the sinus of the bulb forces these last drops outward, clearing the meatus in a fine jet. The levator ani, the perinei, the pyramidal, the circular muscles in the membranous portion of the urethra, all act in clearing the canal of the last drops. In doing this a wave of blood passes along the corpus spongiosum from behind forward, and is noticeable in the expansion of the glans during erection; when the organ is flaccid it is not observable.

You have before you a person with gleet; you are aware this may be due to various causes. On passing a bulbous sound along the urethra a narrowing is felt at certain points in the pendulous portion, already noted, and the question will arise, Shall you cut or not? You may cut the constricted points if you choose. It is the fashion now to do so. It is alleged by some to be the proper treatment of gleet to relieve the urethra of points of contraction, and to make the canal of uniform calibre throughout as far down as the membranous portion. That this results in the cure of a certain number of cases of gleet is unquestionably true, the reason being that many gleets depend upon a granular condition of the urethra which requires for its cure pressure, and this cannot be exerted by means of the sound between narrowed points. If, then, granulations exist in the canal, requiring pressure for their cure, and the orifice is found small, divide it, and then if there be disproportionate narrowing in the pendulous urethra, divide that also, that you may be able to pass a sound of sufficient size to make the desirable amount of pressure; for the greater the pressure in such cases the more rapid will be the cure. Pathological narrowing may exist in the pendulous urethra caused by traumatism, peri-urethral abscess, follicular inflammation, long-continued granular condition, or other inflammatory state; and when present such strictures should be fully divided, after having first rendered the canal anæsthetic with cocaine. But if you find your patient has simply a moderate amount of contraction in the second or third inch of the canal, it will not be necessary or desirable in the majority of instances to use the urethrotome. Such routine surgery is objectionable, and is based on an imperfect conception of the origin of many gleety discharges. I wish to state this fact very forcibly, for I scarcely ever get a patient with a gleety discharge which has existed a year or more (and I see a great many of them from New York and distant points) without his having already been cut in the pendulous urethra two, four, or, as in one case, eleven times; yet the muco-purulent discharge has not been cured. Therefore I repeat that it is a great error to suppose that the narrowing which exists in the pendulous portion of the urethra is always the cause of the gleet from which the patient may suffer. So to regard it, and adopt the knife as routine practice, brings surgery into disrepute among the laity, and it is among the laity that we must maintain a reputation for integrity and correct practice. The routine practice of dividing narrow points in the urethra for gleet is to be likened to the conduct of the plowman who read in a magazine how to write a successful story. Thinking it would be a good thing to write a successful story, he followed the rules given; but his story did not prove a success, and he asked an equally stupid friend how to account for it. The reply

was that he probably had not used the right kind of ink.

Try to discover the origin of the gleet, and locate the trouble which is the cause of its continuation. Sometimes you will be able to do this, sometimes you will not. The case before us may enable us to bring out some diagnostic points. I have not yet examined him, but he is said to have gleet. I am further told that he has a narrowing in the anterior urethra, and the question has arisen whether to cut it; and if the answer is affirmative, why? The operation itself, should it be determined upon, will occupy very few minutes.

I requested my assistant to collect the patient's urine, have it passed in two parts, the first passed collected in one glass graduate, and the last part in another by itself. But this has not been done, for the patient has just passed his water. Consequently I shall now be unable to demonstrate the point which I had intended to do, and which is necessary in making an exact diagnosis. It is a most extraordinary fact that a man will come all the way from Rochester or San Francisco to be examined for a urinary trouble, and perhaps be obliged to return by the next train; yet just before reaching the doctor's office (and being perhaps unduly nervous), he will go around a corner or to some water-closet and pass his urine. Having emptied his bladder, the doctor cannot obtain a specimen of his urine, and is unable to make a diagnosis or to treat the case thoroughly. If the patient has time he may return again, or sit in the office a couple of hours until his kidneys have time to secrete more urine, otherwise one valuable diagnostic point may be lost.

After waiting for some minutes, this patient has been able to urinate again, and has passed more than an ounce of water in one vessel and a less quantity toward the close of the act in a second vessel. The first portion washed the urethra, is muddy in consistency, looking like cider or mutton-broth or chicken-tea. This color signifies that it is mixed with some solid substance which renders it more or less opaque. The part passed last is clear. If a man comes to you and passes such urine as this which has washed the canal, while the last part is clear, you may conclude that his trouble lies in the urethra anterior to the neck of the bladder. Why? Because if the pus formed in the vesical neck or above it, some of it would collect in the bladder, and pus coming from the kidneys or bladder is mixed with the whole amount of urine, so that that passed last is as perturbed as the first.

We may safely say, then, that the cause of this man's gleet is either in the anterior urethra or in the grip of the membranous urethra, and does not involve the prostatic sinus.

A second point relates to the shreds contained in the urine, for a man with moderate gleet always passes shreds. They look like tufts of cotton floating about in the urine, or else like long, thin filaments. When of the former character they come from the deep urethra, and when of the latter character generally from the anterior urethra. In this case we find some relatively broad while others are relatively long.

If there is considerable secretion of pus, say one drop to be found most of the time at the meatus, and another ready to be squeezed out, it may all come from the anterior urethra. If a man says he has only a little gleet, sufficient to gum over the meatus, without staining the shirt, the focus of disease may be the deep urethra, some of the pus remaining in the canal to be washed out with each flow of urine. In such case the chunky shreds in the urine will preponderate over the linear shreds and there may be more or less free pus. If the patient forms one drop of pus an hour in the anterior urethra it will be sufficient to stain the shirt, and if this amount is formed and the shirt is not stained it is because the secretion comes from the deep urethra, and remains in the prostatic sinus or flows backward into the bladder, and then to cut the anterior narrowing in the canal will not relieve the gleet.

When a man comes to you with gleet, ask him how often he passes water. If not oftener than five or six times a day it is normal. No perfectly healthy young man gets up habitually to pass water at night. Of course he may do so occasionally, as after drinking excessively of fluids, or awake with a priapism and rise to urinate to relieve it. This patient says he passes water five or six times a day and once at night. I venture to say that if he passes water regularly once at night he has an irritation in the deep urethra, which would correspond with the chunky shreds which we find in the urine first passed. If he urinates once at night he probably does so oftener than five times a day, say eight or more times.

Thus far we have obtained circumstantial evidence that our patient has a gleety discharge, the origin of which is in the deep urethra and some of it in the anterior urethra as well. But we will examine him

with the sound to learn whether there is not also difficulty in the anterior urethra. Since he has just washed out his urethra by urination, any pus lying in the anterior urethra must lie there as a soft scab upon a granular surface, and this may be scraped away upon the shoulder of a bulbous sound. His meatus being rather small, we can introduce a bulbar instrument of hardly sufficient size, and it will be better to substitute the urethrameter of Dr. Otis, which can be turned up after passing the meatus to form a bulb. Pass the instrument down into the sinus of the bulb. Screw it up until the patient is sensible of the pressure. Then withdraw it gently screwing it down as it reaches the narrowed areas. On withdrawal it will bring away a clot of pus, often tinged with blood if the narrowed areas are also in a granular condition. If that is the case you have corroborative evidence of the filament of pus found in the first urine passed. But if the bulb comes away clean, without either pus or blood stain, the patient does not show undue sensitiveness at the points of narrowing in the pendulous urethra, and the shreds contained in the first urine passed are not long and filamentous, but chunky, you may conclude that the discharge comes from deeper down, and that division of the anterior narrowing will not cure it.

Of diagnostic importance is a microscopical examination of the shreds passed with the first urine. The chunky shreds, which come from the posterior urethra contain besides pus cells, ovals cells which are from the deep portion of the urethra and the neck of the bladder, and the whole is bound together by a colloid material. Sometimes casts of the prostatic ducts are present, amylaceous corpuscles, perhaps spermatozoa.

Regarding the measurements of the penis and urethra, the rule given by Dr. Otis to determine their relative size is a good one; I know of none better, but I do not agree with him as to the necessity for making the urethra of uniform size throughout. When it is necessary to perform internal urethrotomy you may cut safely to the limit which Dr. Otis's rule calls for, and sometimes it will even be necessary to cut more deeply in order to divide all the constricting fibres. But many people get well of a gleet without having the canal brought up to the size alleged to be called for by the circumference of the penis, and indeed many people go through life with considerable narrowings of the urethra without any symptoms referable to the penis. Dr. Weir has examined the urethra in cases of fœtuses removed from the womb of the mother, and found contractions at the orifice and in the pendulous portion. Such contractions must, then, be physiological. Dr. Weir also took casts of the urethra in the normal and in the diseased state, by injecting plaster or wax into the canal and after it had hardened cutting it out, and in all instances the canal was found to be somewhat like the trachea, composed of small rings, more marked anteriorly and in the middle portion. You can divide the urethra internally up to any point you choose, until a sound will pass in and out perfectly smoothly, encountering no obstruction, yet when you pass the bulbous sound, one a little larger than the ordinary sound which goes smoothly down, you will find it give the sensation as if the canal were ribbed.

I once yielded to the solicitations of a young man who suffered from all sorts of neurotic disturbances to divide his urethra on a number of occasions, but never got to the point where the bulbous sound in passing down would not bump over points of apparently fibrous structure. Finally I concluded these operations had been carried far enough, and refused to do any more cutting, but he insisted that there was a constriction which needed to be divided, and being asked how he assured himself of it, he said he could feel it, and taking out his penis he opened the orifice, put his finger into it, and said "here it is!"

Recently the ribbed condition of the urethral canal has been demonstrated beyond peradventure by the aero-urethroscope of Antal. A urethroscope is an instrument through which one can look into the urethra, and an aero-urethroscope is one which combines distension of the canal with air. By its aid one can see the semicircles and circles of fibrous material which are present as far as vision extends. The aero-urethroscope further demonstrates the normal contractions to which we have alluded.

In view of the fact that this man's urine contains some filamentous shreds, indicating that they come from the pendulous portion of the canal, that there is sensitiveness at the narrowing posterior to the glans, facts pointing to some inflammation at that point aside from that which evidently exists in the deeper urethra, and that the bulb comes out stained with both pus and blood, we will divide the narrowing in the pendulous urethra, and also enlarge the meatus to enable us to pass the sound. The deeper urethral trouble must receive attention later.

After cutting, the parts need not be disturbed for three or four days, and after that the sound should be introduced down to the membranous urethra, but not through it, twice a week. Some deep injections will probably be required in this case before complete recovery will take place.

COMMUNICATIONS.

TRAUMATIC GANGRENE.[1]

BY THOMAS H. MANLEY, M.D.,
NEW YORK.

Mr. President and Fellows: I am led to present an article on traumatic gangrene because it has been my fortune, during the past few years, to see in and out of hospital many genuine cases of this disorder; and while there has been nothing unusual which each case assumed, it may not be without interest to record four or five of them, and afterward dwell on the causes, consequences, and treatment of mortification. In doing so I shall aim rather to be plain and practical than to offer too much theory and speculation.

The discussion of this phase of disintegration cannot fail to be of great interest to the general practitioner, as well as to the surgeon; especially the former, who often is compelled to decide questions of saving life or limb, without the opportunity of consulting with the experienced surgeon.

Traumatic or moist gangrene of a limb is rarely seen in general practice, and very seldom in a well-conducted hospital. Usually when a limb is so crushed or mangled that saving it appears impossible, the spontaneous destruction of the part is frequently anticipated by amputation or excision; and besides, nowadays, wounds and injuries are for the most part so intelligently treated, that death of a part seldom occurs. Hence, the reason why this rare and peculiar sequel of a wound may, by its insidious development and often very rapid course, escape the notice of the medical attendant until it is too late to spare a limb, which might otherwise have been saved.

When it is found, however, that inflammation has ceased and mortification begun, we are confronted with a most serious question, namely, the question of amputation *while gangrene is in a spreading state.* To its consideration, later on, I shall request your attention; for on its wise and judicious settlement will depend, perhaps, not only the life of the patient, but also his future usefulness. I am pleased to be able to report four or five typical cases which have recently come under my immediate care. They are of much interest, for each one presents phases of gangrene seldom met with, and, I believe, little understood, even to-day.

My first patient was a middle-aged man, mortally bitten by a rattlesnake. He was brought in by the ambulance, to Ninety-ninth Street Hospital, at midnight on June 12, 1885. During the evening of that day he had been exhibiting his reptiles in one of our parks. After supper, according to the announcement, he gave a performance in his tent, which consisted in calling the snakes out of their cages and putting them through various movements. While doing this, one which he had teased with his whip suddenly turned, and with a vicious snap sunk his fangs deeply into his trainer's forearm. The unfortunate fellow, who was a vigorous and muscular man, became faint and dizzy; he sat down, and tried to get up, but fell on his knees. He soon had chills, with cold extremities, and his strength entirely gave way. Whiskey was administered in large quantities and heat applied to the extremities. During this appalling collapse, his mental faculties remained intact, and, though he could neither speak nor move, it was apparent that the mind was unclouded. At this time his pulse was 130, the features sunken and of a peculiar cadaverous expression, the pupils dilated, and the eye of a bright, unnatural lustre. Such is the report of the case, as given me by Dr. G. E. Spaulding, our estimable House-Surgeon, at that time on duty.

The case was first seen by me the following morning, when all hope of saving the injured arm was abandoned. At this time the forearm that was bitten, and all the tissues up to the shoulder, were dead to sensation and immensely swollen; the skin was of a yellowish-gray color, the fingernails black, and the whole limb immovable. In the immediate vicinity of the puncture, there was an area of marble whiteness about the size of a half-dollar. The man was evidently sinking, and as the infection had extended beyond the shoulder-joint nothing could be hoped for from amputation, even if he would survive the shock of operation. From his admission into hospital, nothing was neglected that

[1] Read before the New York State Medical Association, Oct. 10, 1888.

would sustain his strength. Alcoholic stimulants were freely given with ammonia, camphor, and opium, but without avail; he died in the morning at 10 A. M., eleven hours after his admission.

This case demonstrates how rapidly gangrene from the bite of a venomous reptile may spread. Within six hours after the infliction of the bite, the whole arm, including the shoulder, was in a state of sphacelus—thoroughly dead, dark, and withered; there were blebs on the skin, scattered about from the finger-tips upward. The skin was denuded here and there, where it happened to be rubbed in handling; the whole arm emitted a foul, sickening odor. A most painful feature in the case was that, while death was rapidly creeping on and the limb was rapidly decomposing, the mind was untouched, and the poor fellow was anxious that his life might be spared.

It seemed to me that, with appropriate measures applied promptly on the reception of the injury, this man's life might have been saved: if the bitten part had been freely dissected out, allowed to bleed, and thoroughly cauterized with the hot iron, before the poison had been diffused into and through adjacent tissues, paralyzing the nerves and destroying the circulation. It was sometime, however, before an ambulance was called; then the poison had entered the general circulation and little could be done. A *post-mortem* could not be obtained.

My second patient, though he got off with his life, had to part with an arm. This case also illustrates the speedy onset of gangrene, and the sudden transition of inflammation to mortification, and what may be sacrificed by oversight or even a few hours' delay.

The man was 38 years old, a tinsmith by trade, living a regular life; he never dissipated nor abused himself, but was generally in good health. He lived in a tenement house, the first floor of which was occupied as a butcher's shop.

On a very hot night in July last year, he left his bed at about midnight, in his night-clothes, and went to the window to make himself more comfortable. The window-sill was quite near the floor.

He only intended to get a little fresh air, to cool off and then return to his room; but, overcome by the weariness following upon a day's hard toil, he was soon asleep. How long he slumbered he hardly knew, but it must have been some hours, for it was dawn when he was discovered. While asleep, it seems, he shuffled about in his chair, lost his balance, and went out through the window. He first struck on the awning, and was awakened by the fall. He then rolled over and over, quickly gliding toward the flags below; but in the course of his rapid descent, his right arm, at the flexure of the elbow, on the inner side, was transfixed by one of a row of butcher's hooks, which tore up all the tissues to the bone, and was only arrested at the wrist by the tough ligamentous tissues which form that joint. Here he hung suspended for nearly half an hour, when his loud shrieks brought an officer, who released him from his perilous position.

On examination of the wound, on his admission to the Harlem Hospital, by Dr. Lewis, the House-Surgeon, there was very little hemorrhage, though the brachial artery was torn completely across just below where it emerges from under the bicipital fascia. The hand was quite cold, with no evidence of circulation. The wound was immediately dressed, beginning with the ligation of the large artery, and thoroughly irrigating the furrow in the tissues. Drainage tubes were inserted and the wound closed from end to end with cat-gut sutures. Iodoform was freely sprinkled over the dressing; Gamgee absorbent dressings were applied, and the whole supported, and heat maintained, with hot bottles.

I saw the patient for the first time six hours after the injury, when I carefully examined the fingers, the only parts exposed, and found that the circulation was fairly re-established.

There was little swelling at this time, and though the hot water bottles had been some time removed, natural heat was yet there. The patient said he had his usual feeling in the hand, complained but little of pain, and looked well.

He passed a quiet, uneventful day. His pulse at mid-day was only a little accelerated, and, with a good collateral circulation, it seemed, after all, that he might soon recover without any serious detriment to the use of his arm.

The morning dressings were undisturbed, and things allowed to remain as they were. Toward evening, the temperature suddenly went up, and he became thirsty and restless. The thumb and fingers underwent considerable swelling and increase in heat, and he complained of severe pain along the course of the wound, extending into the fingers. It was now evident that collapse had passed away, and re-action set in, and that nature was attempting restoration. I had antici-

pated this at my morning visit, and directed the House-Surgeon, if there were much swelling, to release the sutures and loosen the dressings, which he did, much to the relief of the sufferer. As day passed into night, he became more and more uneasy, continually complaining of a severe burning pain extending from the hand to the elbow. His pulse, at midnight, was a hundred and thirty beats to the minute, hard and bounding, and the thirst persistent.

With the advent of early day, he slept three hours, and felt much more comfortable. There was, however, great bodily weakness, so that he could hardly move in bed. In going through the wards, at about 11 o'clock, I was much surprised at this man's changed appearance, and concluded at once that the wound was not doing well, though the House-Surgeon assured me that, two hours before, everything appeared to be progressing favorably. The patient, strange to say, said he felt first-rate. He was immediately removed to the surgery, where an examination was made. The fingers, hand, and arm, to and above the elbow, were found stone-cold, discolored, puffed, and boggy—in fact, all the tissues here were dead and becoming gangrenous. The scalpel could be plunged in anywhere, up to within six or eight inches of the shoulder, without evoking the slightest sensation. The dividing line between the living and dead tissues, though not visible to the eye, could be more or less defined by the circulation and sensation. Up to the insertion of the deltoid muscle, the parts were quite devoid of life, but at this point there was a striking difference in the color and consistence of the blood let out on incision.

Now, we had before us a case of great gravity, one which emphasizes what I said in the beginning of this paper, of the insidious and treacherous nature of this disease, and the serious developments which may follow in a wound, even under the most intelligent treatment. Here, too, came up that question, At what stage is operative interference justifiable? Shall we wait for nature to separate the healthy from the diseased, or shall we take time by the forelock, and do that by art which nature only tediously and imperfectly performs?

In the present case it seemed to me that gangrenous infiltration was rapidly spreading upward, and that if it were allowed to creep but a few inches further, and involve the shoulder-joint, relief by operation would be impossible. Consent having been given to amputate, ether was given, and the limb removed at the shoulder-joint. I shall later on describe more fully the condition of the parts at the time of cutting. The patient made a good recovery, the wound healing by primary union; he left the hospital in good health, six weeks after his admission.

My third case, like the second, well illustrates the imperative necessity, at times, of amputating while gangrene is spreading, and teaches besides the important lesson that a comparatively trifling injury may, if not properly treated, end in loss of a limb, or even of life.

The patient was a man forty years old, in sound health, by occupation an engineer. On January 12, 1888, while ascending an elevator, he had the big toe of the right foot crushed between the sill of a door and the platform of the elevator. A practitioner in the neighborhood was called in and removed the nail, which was partly detached, and the third phalanx, taking his flap from the under surface of the toe and bringing it forward to the point at which the bone was disarticulated; the dressing was with all antiseptic details. A week after the accident, I was invited by the wife to see the case, but declined, except with the regular attendant. A few days later, a consultation was held, when it was decided to remove the third phalanx of the adjoining toe. As this operation was followed by the same torturing pain, and the man could neither eat nor sleep much, and was daily losing flesh, his wife insisted that I must see her husband. The surgeon in attendance consented. This was three weeks after the injury. It was about noon when I saw the case in consultation for the first time. At first sight it seemed to me that the foot was surely doomed. It was immensely swollen on the inner side, œdematous and cold. On critically examining the parts I found more or less warmth in the three outer toes, and in the external portion of the foot. I advised immediate amputation of the affected parts, which was done one hour later. All the phalanges of the big and middle toes and their metatarsal bones were found necrosed, the fleshy parts were broken down, disintegrated, and soaked in a sero-purulent liquid of vile odor.

The most difficult feature in the operation was to decide exactly how far to cut, in order not to include contaminated tissues. We gave the patient the benefit of the doubt, and removed as little as possible. Though we used no tourniquet, we had little hemorrhage. This, I feared, was a bad omen, as we all know how extremely vascu-

lar this region of the body is. The morning after amputation the doctor and I saw him together. At this time the remaining part of the foot looked anything but encouraging. Large blebs had formed on the dorsum of the foot; the swelling remained, and what was left of the foot was rather numb to the touch. As the people were rather poor, and the apartment not the healthiest, it was decided to send him to hospital. Accordingly, the same day he was admitted into one of my wards in the Harlem Hospital. I immediately sent for Professor F. S. Dennis, one of the Visiting Surgeons, for his advice in the case. He responded promptly, and at 5 P. M. he, with Dr. John G. Truax, saw the case with me, and advised delay and waiting for further developments. The rapid recovery of the part was amazing. It healed quickly and compactly by granulation, and the patient returned to work just six weeks from the time of entrance to hospital, with a fairly useful foot; and now, though he is a little stiff in his gait, there is scarcely any lameness perceptible.

The fourth case was that of a young German twenty years old, admitted into Harlem Hospital June 2, 1888. His horse had taken fright, and he was thrown from a wagon against an iron support of the Elevated Railroad. When picked up, it was found that he had sustained a compound fracture of the lower third of the radius, with a compound dislocation outward of the articulating ends of the radius and ulna at the wrist joint. On admission to hospital he was suffering considerably from shock. The parts were thoroughly cleansed, irrigated with sublimate solution, the displaced bones reduced, the surface of the wound dusted with iodoform, the Gamgee dressings applied, and the whole supported by suitable splints.

Prof. Dennis, who had charge of the case in its early stages, saw it for the first time, June 3, the second day after the patient's admission. By his direction drainage tubes were inserted, and the most thorough antiseptic treatment instituted. On the third day after admission, he began to complain of pain, the ulnar side of the hand seemed to become cooler, and the skin was of a rather suspicious color. June 6, the fourth day after admission, the hand showed unmistakable evidence of gangrene. The ulnar side of the wrist and hand, and the four fingers on the corresponding side were much swollen and destitute of sensation. His appetite, however, remained good and he slept well. June 9, the date on which I first saw the wound, and resumed charge of the surgery at the hospital, the whole hand from the finger-tips was more or less mortified, with patches here and there, where it seemed some vitality remained. A large slough occupied the palmar surfaces of the hand, extending deeply into the carpal bones. The opening through which the bones protruded had not closed, and their bare denuded ends could be plainly seen. It seemed at first sight that notwithstanding the slight evidence of life remaining in the thumb and index finger, that the only safe and expeditious way to proceed would be to amputate the whole hand. As it would appear that gangrene, having involved all the carpal bones, and the fleshy tissues being in a sloughy state, nothing short of this would suffice.

From my success, however, with my preceding cases, in operating while gangrene was spreading, I decided to try and save the thumb and first finger. When we operated, we found all the phalanges of the three outer fingers, with their metacarpal bones, and all the carpal bones in advanced necrosis. The ends of the radius and ulna were also necrosed and deprived of their periosteum. Everything of a suspicious character was removed; but the thumb and finger were spared.

The process of disintegration here was so rapid and thorough, that one would think the retained members very soon must have shared the same fate as those which were removed.

The wound was treated on general surgical principles and by keeping the arm in a well-padded zinc splint, hollowed out and extending from the end of the finger and thumb to the elbow. The wound healed kindly, though the skin on the preserved members peeled off in the course of recovery. He left the hospital one month after entering it; the wound was well healed, and he had fair use of the thumb and finger.

I ask your attention to my fifth and last case for a few moments because there was a feature in it peculiar to itself, and of very much importance. A youth seven years old, while playing on a coal-car that was in motion, fell to the ground; the wheels passed over the right lower limb obliquely, tearing the skin completely off from the knee to the ankle, and, crushing through the bones of the latter, left the foot hanging by a few torn tendons. When reached by the Ambulance Surgeon, Dr. Curry, he had

bled profusely, and was in a state of shock. He was admitted into the Harlem Hospital on September 3—in fact, since I commenced this paper. Nothing was done with the mutilated limb until the following day, except to secure the vessels and apply dressings. On the second day after his admission he had recovered from shock and the profound collapse, but had a very feeble pulse. The foot was separated from the leg by snipping off the tendons with the scissors; the leg was then again cleansed and bound up. Nothing further was done for five days, except to give the patient stimulants and nourishment, with a view of getting him in condition for operation.

It was now thought that, with the bare ends of the tibia and fibula exposed, the superficial tissues of the limb in a state of slough up to the knee, and his condition fair, though yet with a weak trembling pulse, we might make him more comfortable and rid him of the offending members by an amputation above the knee. The limb might have been removed lower down, but then there would have been no integuments for a flap.

The question to decide was, When to amputate, with reasonable safety? my own experience being that very young children do not tolerate amputations well. At this time, the exposed tissues had begun to granulate, the only one of the five cases in which this occurred; the line of demarcation was well defined, commencing in an oblique circular form just above the patella, and embracing the entire limb. At the borders of this narrow chasm, the position and consistence of the parts were most interesting to study. On the necrosed side the tissues had a gray, charred appearance; they were withered and shrunken, and, as time had allowed the aqueous elements to evaporate, the slough had become dry and tough. On the other hand, the sound side of this ridge looked remarkably healthy and in striking contrast with the parts undergoing dissolution.

A flap was formed by detaching and turning back the skin at the healthy limit, and removing but a very thin shaving from the border, with a view of securing primary union. The femur was divided about two and one-half inches above the knee joint. After amputation the flaps were sutured, drainage tubes used, and the stump put up in the usual dressings. Not more than a drachm of blood was lost. It was more than four hours before the patient regained consciousness, and he remained very feeble, never really rallying from the operation, and died the following day, about thirty hours from the time he reached his bed. The amputated limb was carefully examined and found sound down to the protruding ends of the bones. I saw no object in trying to save the limb when it was entirely denuded of integuments; and skin grafting, which forms at best but a sort of cicatricial tissue, is almost useless as a covering to a movable joint like the knee.

Such was the melancholy ending of my last case. The child's life, I am confident, should have been saved, and I committed the fatal error of cutting before the recuperative powers were fully established. Everything was to be gained by waiting even a month, and nothing lost; but it is always easy to be wise after the mistake is made. It taught me a valuable lesson, however, and I would warn my brethren of the great danger of operating while the vital processes are at a low ebb. With reference to the foregoing cases, I would respectfully call your attention to the varieties of traumatic gangrene, and to its causes, consequences, and treatment.

In the beginning, moist gangrene must be divided into two kinds, the spreading and the non-spreading—that in which the limit of death is sharply and accurately defined by a dividing line, in a very short time after violence is sustained. But it must be admitted that this dividing line is no criterion as to the depth of mortification. The first kind is that in which the line of demarcation is wanting or not well marked, which I have chosen to designate the spreading, inasmuch as the gangrene starts from an insignificant injury or very limited solution of continuity, and extends rapidly from the periphery toward the body.

The causes of gangrene are obscure in many instances. Pathology has done little to clear the way to a better understanding of morbid process in gangrene; and, after all, we have to lean on our own experience for guidance in treatment.

Sometimes its development is unavoidable. We cannot predict how extensive or destructive an injury will be. No one can explain why a trivial hurt in one case leads to most serious consequences, while in another the extent of mutilation is alarming, and yet the limb recovers perfectly, with little or no constitutional disturbance, and no loss of function. This is the mystery which it seems all time will never reveal.

Inflammation is the most active factor in the production of moist gangrene. In all

my recorded cases except one there was active inflammation preceding mortification. In only one, in which the toxic irritant was immediately applied, the limb succumbed with the diffusion of the poison, which seemed to multiply in intensity in its progress. The laceration or obliteration of a large blood-vessel contributes its share toward the destruction of a part by cutting off its nutrition; but that this alone will lead to gangrene in a healthy person, I am inclined to doubt.

We all know that there is scarcely a single vessel in the body which may not be closed by the ligature without the peripheral parts being in the least endangered. Even in one case of gangrene of the ulnar side of the hand here reported, it would be hardly rational to suppose that even if the entire ulnar artery were destroyed, it alone would occasion mortification; as we all know that the collateral circulation in the forearm is good, and besides, there is the freest kind of anastomosis between the ramifications of the radial and ulnar arteries, in the superficial and deep palmar arches.

Injury to a nerve may be transmitted to a large trunk, and from there affect a large area; and it is entirely reasonable that a nerve filament may undergo death, and then in turn all the distant parts supplied by the common trunk share the same fate.

We may have gangrene of various extent, and sometimes its course is remarkably fickle and erratic; as when it destroys the skin only, without affecting the subjacent tissues, and when it destroys the latter and spares the former. Blocking of the blood-vessels will not explain this; so that we must look to a deranged or interrupted nerve-supply to account for it. Excessive or improperly adjusted pressure, and neglect or ignorance of wound treatment, are often responsible for gangrene.

We now come to its treatment, and this is the part of the subject in which I am especially interested. It may be divided into preventive, conservative, and operative; with the latter I am chiefly concerned. For prevention, use measures which will subdue inflammation. The modern enthusiast in antiseptics would have us believe that these, when rigorously applied, render inflammation impossible. If we should unconditionally subscribe to this doctrine, then it would be idle to discuss other means of relief; but there are some skeptics among us who are not quite ready to throw aside remedies which have stood the test of centuries.

Cleanliness, soothing applications—warm or cold, according to the comfort they give—rest, good fresh air, with light wholesome diet, contribute toward a favorable issue. Drugs are not to be despised. The best are those which allay pain and those which act specifically in subduing inflammation. For the latter purpose mercury has no equal, either applied locally in the sublimate douche, or given internally.

Of course, if I believed in the natural tendency of disease to recover, I could not consistently advise any drugs; but I believe this do-nothing theory has cut short many valuable lives; that disease never comes except to destroy; and that our province is to apply our art so as to limit or arrest the progress of the disease.

If inflammation will develop in a case of gangrene in spite of our efforts to control it, we may often modify its violence by free blood-letting in the vicinity of the congested parts, either by free incisions or punctures, the bleeding to be encouraged by warm, moist applications.

If inflammation terminates in mortification, what are we to do? When is interference by the knife justifiable? Shall we do by art that which nature very slowly accomplishes? Is it hardly conceivable that the attendant will stand idly by and see a limb slowly but steadily perishing, the deadly process propagating itself upward toward the vitals? Shall we amputate in spreading gangrene? These are questions which may be forced on the practitioner at any time; for it must be borne in mind that an extensive mortification may arise from a simple wound under certain circumstances which may involve the loss of a limb.

Among the great surgeons of the early part of the present century there was much difference of opinion about the propriety of amputating while gangrene is in a progressive state. Sir Astley Cooper gave the great weight of his authority to the side which advised delay till more or less detachment of the diseased from the living tissues was evident. On the other hand, both the world-renowned military surgeon, Baron Larrey, and Mr. Guthrie, gave the most cogent and convincing reasons for immediate interference.

Larrey said: "That in cases of mortification arising from external injuries, notwithstanding what practitioners or writers may say to the contrary, we should not hesitate about promptly performing an amputation as soon as the necessity of doing the operation is established. There is no reason to

apprehend that the stump will be seized with gangrene, as in the spontaneous variety which has not ceased to spread, because the traumatic mortification, after having arisen from a local cause, is only propagated by absorption, and a successive affection of the textures of the parts by continuity of vessels. Amputation performed in a proper situation arrests the progress and fatal consequences of the disorder."

We must be positively assured that a limb is actually gangrenous before we resort to cutting. This can usually be easily determined by its condition, the absence of circulation, the discoloration and puffiness of the skin, and above all by its icy coldness—that state of the tissues in which Dupuytren proved by experiments that the temperature, for some inexplicable reason, is lower than in the dead body.

The exact point or locality at which to enter with the knife when we have decided to amputate—where to sever the parts so as to get rid of the defunct and spare the living—is to the inexperienced a very difficult matter to decide. To the conscientious surgeon, as well as to the unfortunate patient, it is a most serious affair; as we all know the inestimable value to the wage-earner, not only of a limb, but of every joint, no matter how small. On theoretical grounds, we should take no chances, but go well beyond the suspected tissues. My experience, however, has taught me to be extremely conservative, and include in the flap even some of the tainted part, rather than go too far up into sound tissues, especially when a joint is involved.

In my case of mortification of the whole arm, in consequence of external violence, and which was successfully amputated at the shoulder joint, the skin of the limb was greenish and livid, but high up the cuticle was not detached. The cellular substance was distended with air and a discolored sanies; and its appearance was not quite natural when the incision was made. It was yellowish and anasarcous; small effusions of blood were observed here and there along the course of the nerves as high as the point of amputation. All the soft parts were discolored and livid, and a frothy reddish fluid issued on incision.

As this case had a most favorable termination, it clearly proves that humid gangrene in the healthy subject from severe local injury, which so rapidly affects a whole limb and reaches the trunk in a few hours, must constitute an exception to the older maxim: "that amputation must never be performed till the line of demarcation is well defined."

To sum up, it will be noticed, in the first place, that all the patients were males; that there was a local *rot* without a general infection in all except one. The first case was most remarkable for the swift and appalling virulence, and almost immediately lethal action of the bite of the snake. In the second, though collateral circulation was established after the ligation of the brachial artery, mortification quickly supervened, and was abruptly arrested in its march by carrying the knife through the invaded tissues. The third case illustrates what a serious condition may arise from a trifling injury; while the fourth shows that we should use all our endeavors to save every inch of tissue which shows the least spark of life. The fifth case was lost, I believe, through acting without the deliberate judgment by which the surgeon should be influenced in every extensive operation.

CASE OF ANTHRAX.

BY WILLIAM N. FERGUSON, M.D.,
PHILADELPHIA.

I desire to call attention to a most deadly malady, rarely seen and recognized in practice, but one to whose virulent contagion many workmen in our large cities are sometimes exposed. This disease is anthrax.

The patient, F. N., was a "picker" in a manufactory of hair and bristles, who was exposed to the dust of the machine-picker as it separated the bundles of hair. A slight abrasion on his neck, supposed by him to be caused by the rubbing of a high collar, became the open door to the entrance of the poison. Friday, November 23, he felt unable to attend to his work; he had headache, chill, general malaise. His neck began to swell at the seat of the abrasion. He gradually became worse, and on Sunday morning at 8 o'clock he sent for medical advice. I was at once struck with the enormous size of his neck and the depressing effect the disease had already produced on a man of evidently strong physique.

On closer examination I found, on the right side of his neck, about an inch above the clavicle and on the posterior border of the sterno-cleido-mastoid muscle, a spot about one-half inch in length by one-fourth in width and concave on its upper surface; the centre of this area was occupied by skin thrown into a number of puckered folds,

markedly yellow beneath. Around this spot was a sharply defined area, brilliant rose-red in color, and about one-sixteenth inch in width; there was no hardening to be felt. From this spot the brawny swelling had progressed as though all the tissues of the neck were infiltrated with serum; it was not erysipelatous in appearance. His general look was that of a man stricken with a fatal disease; the pulse was feeble and frequent; respiration impaired by pressure on the air passages.

The treatment ordered was a large flaxseed poultice to the neck, and internally a mixture of chlorate of potassium and tincture of the chloride of iron, with stimulants.

Six hours afterward I was sent for hurriedly and found the patient had been having severe attacks of dyspnœa, and that he was in a state of collapse, with ice-cold extremities and no radial pulse. The swelling in the neck had increased to such a degree that the right shoulder began to enlarge. The patient was conscious but complained only of increased paroxysmal dyspnœa. Hot bottles to the feet and legs with a mustard plaster to the præcordial region were applied, and a consultation was requested.

Half an hour afterward Dr. H. A. Kelly met me in consultation in the case and concurred fully in the diagnosis of anthrax.

Carbonate of ammonium and whiskey were prescribed to stimulate the circulation, but the patient rapidly sank and died about 6 o'clock, ten hours after I had first seen him, and sixty hours after the local inoculation.

His occupation as a worker in hair and bristles, the rapid and enormous infiltration of the tissues, the constitutional symptoms, and the sudden collapse in a strong robust man, to my mind made a clear diagnosis of a case of anthrax.

—Dr. John R. Frayser, whom the *Memphis Med. Monthly* calls the "Nestor of Memphis Medicine," died in that city Oct. 26. He was born in Cumberland Co., Virginia, in 1815, and was graduated from the University of Pennsylvania in 1834.

—On account of ill-health, Dr. William A. Edwards, Instructor in Clinical Medicine in the University of Pennsylvania, has been obliged to leave Philadelphia, and will shortly remove to Southern California. He has had charge of the ward bedside instruction in the University for the past eight years.

ASPIRATION OF CEPHALHÆMATOMA.

BY F. H. PATTON, M.D.,

SURGEON TO THE NATIONAL MILITARY HOME, DAYTON, OHIO.

The following case seems to me of some interest as illustrating the advisability of performing an early aspiration for the relief of cephalhæmatoma resulting from violence.

My son R., aged 15, fell from a 56-in. bicycle on his head, August 7, 1888. I saw him almost immediately. He was entirely unconscious from shock, and remained so for an hour or more. There was immediately after the fall a large hard swelling with contusion of scalp over the coronal suture on the right side and a blood tumor with clearly defined edges over the left parietal bone, but no contusion of the scalp here. The boy made about the ordinary favorable recovery from severe concussion, but was in a state of hebetude, with headache and some vomiting, for several days.

The point of interest in the case was the very rare cephalhæmatoma. In this case the blood was probably beneath the pericranium, as the tumor was circumscribed from the first and bounded by the sutures of the parietal bone. There was a diversity of opinion among my professional friends who saw the case, as to treatment. All agreed to wait a week or ten days for evidence of absorption. After the lapse of ten days with no diminution in the size of the tumor, aspiration was discussed. It is surprising how indefinite authors are as to aspiration in such cases. Nancrede in Ashhurst's Encyclopedia says: "If the swelling persists, aspiration may become necessary." Wyeth does not mention aspiration as treatment, except when a serous cyst results. I might mention others as unsatisfactory. At the expiration of twelve days the tumor, in my son's case, was aspirated, and ten fluid drachms of blood were removed. A firm compress was applied over the seat of the tumor for seventy-two hours, when all the remaining fluid had been absorbed, and there was no further trouble with the tumor. In a similar case, I should aspirate sooner. Under proper precautions there is scarcely any danger of carrying septic matter or air into a tumor of this character, and I certainly should prefer this chance to anxiously awaiting the result of the slow process of absorption, with the constant dread of suppuration or the formation of a cyst.

SOCIETY REPORTS.

PHILADELPHIA COUNTY MEDICAL SOCIETY.

Stated Meeting, November 28, 1888.

The President, J. SOLIS-COHEN, M.D., in the Chair.

DR. WILLIAM HUNT read a paper on

Diabetic Gangrene,

in which he first referred to the vast literature devoted to diabetes and the singular fact that the references to gangrene in connection with it are very meagre. The best studies of diabetic gangrene are to be found in French, especially prior to 1868. Peyrot reports 39 cases and there are 101 cases in current French literature, most of them in the *Union Médicale*. Dr. Hunt gave a brief account of ten of these cases, most of which were in males, and among which mental causes were common. He then spoke of the valuable paper of Marchal, who reports 133 cases, of all sorts. Gangrene *per se* occurred in 57 of these 133 cases.

Dr. Hunt does not think that diabetic gangrene starts from an injury; and as regards microbes, he thinks that, in gangrene as in other diseases, they are to be found where disintegration of tissue provides the proper soil for them. König's paper on this subject was mentioned, and his conclusion that amputation should be performed when, in spite of antiseptic and anti-diabetic treatment, the patients grow worse.

Dr. Hunt then spoke of the scanty references to the subject to be found in text-books, even in systematic works on surgery, both in this country and in England, and regretted that it had received so little attention. To determine if possible how many cases of diabetic gangrene had been seen in this city, in which examination of the urine had been made and the result recorded, he sent out three inquiries to those whom he supposed most likely to meet with the disease.

In reply to his first inquiry whether or not the observer had noticed gangrene in connection with diabetes, he received thirty answers. Seven observers had seen no cases, and twenty-five reported a total of sixty-three cases. The age of the patients was usually above 50 years, though one case was noted in a young man 19 years old. The sexes were about equally affected—24 women and 25 men. The most common seat of the gangrene was in the lower extremity below the knee.

The second inquiry concerned the relation between diabetes and phthisis, and whether or not gangrene of the lung had been noted in diabetic patients. The answers to this question showed that most observers could not demonstrate correlation of the diseases from their own experience. Dr. Tyson, however, had noted eight cases of phthisis in 55 diabetic patients. Dr. Agnew had met with one case of gangrene of the lung. Dr. J. C. Wilson had also seen one. Dr. Osler had had two patients die of phthisis and one with gangrene of the lung. Only eleven deaths were attributed to phthisis in 143 cases of diabetes, including those from Dr. Hunt's practice. Dr. Hunt thought this result noteworthy. He then referred to the statements bearing upon the relation of diabetes to phthisis to be found in the books of Roberts, Fagge, Flint, and other authors, among them Blau, whose summary of the literature of the subject in *Schmidt's Jahrbücher*, Oct., 1888, was specially mentioned.

In stating his own opinion, Dr. Hunt said that he believed many cases in which phthisis coexisted with diabetes were cases in which the diabetes had supervened upon the phthisis. In his experience the cause of death in diabetics was other than phthisis—coma, œdema of the lungs, or exhaustion.

As to the social condition of the patients, he said that most of his cases were in wealthy people. In age they were for the most part above fifty years. He had noted in several cases a remarkably low specific gravity: in one case 1.010.

In regard to the character of the gangrene met with in diabetics, he said it was usually moist, but in hard tissue it was dry and like that known as senile gangrene; the different varieties depending on the character of the tissues involved.

A point in the differential diagnosis between diabetic and senile gangrene is that in the former there is never, or at most very rarely, a good line of demarcation between the healthy and diseased tissues; while in senile gangrene such a line is usual.

Dr. Hunt then stated that he had been called in January, 1885, to see a wealthy gentleman 76 years old, who was in an attack of apoplexy. He recovered from this attack, but remained a chronic semi-paralytic. On Jan. 9, 1888, he was again called to see the patient and found him comatose, with flushed face, temperature 103°, pulse 120, and with Cheyne-Stokes respiration. There was evidently effusion of fluid in the brain, and pressure upon the respiratory

centre. The interesting point in the case is that sugar now appeared in the urine—from pressure upon the diabetic centre in the fourth ventricle.

Dr. Hunt also referred to a case in which he was called to a patient and found him in deep coma; his respirations 60, pulse 150, and sugar in his urine. The respiration could be stopped by exciting a reflex such as the stomach reflex. Death occurred in two hours from cessation of breathing. He also referred briefly to a case in which he believed a patient had died from acute diabetic gangrene; but in this case the urine either was not examined, or no record of the examination was kept.

Regarding the frequency of diabetic gangrene, Dr. Hunt expressed the opinion that it was second only to the traumatic variety. It is a disease of the wealthy and not of the poor, and in nature seems to be related more to gout than to phthisis. He believes a diabetic drunkard to be rare, and is inclined to ascribe diabetes to overeating with deficient exercise: "Excess in food clogs; excess in drink crazes." He thinks the vaso-motor system must be affected in this disease, and instances in proof of this the well-known fact that impotence is common in men affected with diabetes.

Dr. Thomas G. Morton, in opening the discussion, read a brief account of thirteen cases occurring in his practice. In his cases the disease as usual affected most frequently the lower extremity below the knee. In illustration of the rarity of the disease among the poorer classes, he instanced the fact that among 20,000 patients in the hospitals for the insane in Pennsylvania not a single case is reported.

Dr. Morton said he had known the disease to follow a slight operation, such as the cutting of a corn. As regards the surgical treatment of diabetic gangrene, he thought it should be palliative; in most cases the disease is promptly fatal. In some cases it may be arrested by free incisions. In two of his cases there was very acute pain, and in these he had given relief to the suffering by cutting the nerves supplying the parts.

Dr. John Ashhurst, Jr., stated that all are familiar with the fact that diabetes is a cause of certain gangrenous affections, and that certain injuries, such as that of the floor of the fourth ventricle, give rise to diabetes—or, to speak more accurately, to glycosuria. In these cases the condition of the urine varies very markedly; sometimes the quantity of sugar present is very large; sometimes it is very small. Indeed the quantity may be so small that its presence escapes detection altogether.

He had seen but one case in which diabetes was recognized as a predisposing cause of gangrene. This was a case of strangulated hernia, in a man in middle age, who had long been a diabetic. The incarceration was five or six days old, and when he operated the bowel was found to be gangrenous in one patch. He made an artificial anus, and very soon after the operation the whole region of the wound became progressively gangrenous, and death followed.

He referred to the fact that gangrene is often precipitated in diabetics by trifling injuries, such as cutting a corn.

The fact that the gangrene of diabetes is usually moist rather than dry is of value when a question of diagnosis arises. We believe that alcoholism is a not infrequent cause of diabetic gangrene, and in many cases of spontaneous gangrene in diabetics we must attribute this to alcoholism rather than to the diabetes.

He called attention to the fact that it is not very uncommon to have spontaneous gangrene in certain forms of Bright's disease, while a granular kidney diabetes may be present and not be recognized.

In regard to the treatment of diabetic gangrene, Dr. Ashhurst said, the less done locally, the better. He would advise not only waiting until the line of demarcation formed, but waiting for a line of separation, which sometimes does not form until weeks after the gangrene begins. No operation should be undertaken until this period, and then the surgeon should merely trim off the parts ready to separate, with scissors and forceps, rather than undertake a formal amputation. Constitutional treatment is of the greatest importance. The remedy most useful in diabetic gangrene is one which is of the greatest service in diabetes, namely, opium; and it is also a remedy very valuable in traumatic gangrene. His own practice is to give one grain of opium, night and morning.

Dr. James Tyson thinks diabetic gangrene must be a very rare disease, for among 55 cases which he has notes of since 1884, he has not met with a single case.

In answer to the question whether or not he had seen a case like that reported by Dr. Hunt, in which diabetes followed effusion and pressure upon the medulla, he said he had not met one just like it, but mentioned a case in which a wealthy man, 56 years old, who had been under his care three years for diabetes, became hemiplegic. On the

appearance of the hemiplegia the diabetes disappeared, and has not reappeared for two years. Sugar in this case was frequently present to the extent of from 2 to 5 per cent., and on one occasion rose to 7 per cent.

As bearing out what had been said as to the social condition of diabetics, he said that in the Philadelphia Hospital, where there are one thousand beds, he was frequently unable for weeks at a time to find a case of diabetes to lecture on. Dr. Tyson has noted extreme pain in one case of diabetes in which there was also granular kidney.

Dr. James Darrach reported one case, which had been already referred to by Dr. Hunt, and stated that he had at one time examined a large number of aged persons to determine whether or not sugar in the urine of such persons is usual. He distinctly asserts that it is not usual.

Dr. Darrach also suggested that the condition of the arteries found in some cases of gangrene might itself be a stage of gangrene. He said that in shingles the skin supplied by peripheral terminations of the sensitive nerves was gangrenous, from a depraved condition of the nerves.

Dr. S. W. Gross said that he could see no direct connection between diabetes and gangrene; the former is only a predisposing cause of the latter, just as weak heart and arterio-sclerosis are. He called attention to the age of the patients in whom diabetes occurs in illustration of the assertion that arterio-sclerosis is frequently present; in such cases traumatism occurs and is followed by inflammation and gangrene. He reported a case bearing out this pathology. With regard to König's recommendation to amputate when the patient persistently grew worse in spite of proper medicinal treatment, he said the after-history of two of König's cases justified his advice; for in one case 24 hours after amputation, and in another 4 days after, the sugar disappeared from the urine and did not return. Dr. Gross favors operative interference under the circumstances mentioned by König.

Dr. Osler thinks that Dr. Hunt has underrated rather than overrated the frequency of pulmonary complications in diabetes. He referred to Frerichs' monograph on diabetes, in which the author states that one-half of the four hundred cases upon which his work is based died of pulmonary affections. The latter are grouped by Frerichs as: 1. Gangrene. 2. Broncho-pneumonia. 3. Tuberculosis. The first is referred to arterio-sclerosis as the cause.

Dr. J. William White, in illustration of the importance of estimating the associate disorders which may exist in a case of diabetes, mentioned a case of Dr. Agnew's (mentioned by Dr. Hunt), in which there were profound changes in the blood-vessels.

Dr. S. Solis Cohen said that it was the custom at the Medical Dispensary of the Jefferson Hospital to examine the urine of every patient, regardless of his symptoms. These examinations seem to Dr. Cohen to indicate that diabetes is not so rare a disease among the poorer classes as it is commonly supposed to be.

Dr. DeForest Willard cautioned against operative interference.

Dr. Ashhurst said that he thought the degree of pain met with in gangrene depends upon the rapidity of death of the part: when the death is slow there is much pain, but when death is rapid there is usually little pain.

NEW YORK ACADEMY OF MEDICINE.

Stated Meeting, December 6, 1888.

The President, A. Jacobi, M.D., in the Chair.

Dr. A. L. Loomis was nominated for the office of President by Dr. A. Jacobi. The latter declined a renomination.

Dr. J. R. Leaming read a paper entitled:

Acoustics Applied to the Human Chest in Physical Diagnosis,

in which he said that it was not until the laws of light were studied in relation to the eye that ophthalmology became a true science. There is a law of acoustics which, when applied to the air chamber of the chest, will place the diagnosis of diseases of the organs within on a scientific basis. This practical age of the application of the laws of sound to the telegraph, phonograph, etc., makes it easy to apply acoustic law to the chest in diagnosis. Dr. Leaming considered the different facts involved in this subject, beginning with a brief statement of the laws governing sound, the most important of which, in this connection, are that sound consists of vibrations of the air; a greater number than seventeen hundred vibrations a second is not appreciated by the human ear; and fewer than thirty-two a second give the impression of distinct sounds. He described the chest as a chamber whose walls are lined with a dense elastic smooth membrane, and closed at the base by the diaphragm. It is a perfect acoustic

chamber which can be enlarged or contracted, and its power increased or diminished with the speed of thought. While a most perfect instrument for the formation and reflection of sound waves, it is liable to alteration by disease and its acoustic qualities to change. It also contains the lungs, tubes, and heart, which interfere with its acoustic qualities. The heart and lungs accomplish their work with sound, and to these the auscultator must attribute due importance. The arrangement of the tubes and sacs in the lungs also constitutes an acoustic instrument, but of a different kind from that of the chest chamber. Each sac is a resonator distended with air constantly rarefied by heat, and upon this air the sac constantly contracts, causing vibrations which help to make up the vibrations of the respiratory murmur. Sound waves also pass in from the open air and are consonated in each sac, as are also the friction vibrations of the tidal air rushing in and out through the open bronchi.

Speaking of acoustic laws as applied to the heart the author said he had become further convinced of the correctness of the view expressed by him twenty years ago regarding the origin of the first sound of the heart. It is formed by the vibrations of the tense mitral valve, by the tense chordæ, the sound of muscular contraction, and the friction of the blood.

Regarding stethoscopes, he said there is none better than Camman's binaural instrument; but for accuracy and delicacy, and least likelihood of getting out of order, nothing equals the application of the temporal bone of the head to the resonant body; the most sensitive point of this bone is in front of, and just above, the external ear.

The paper was discussed by Dr. A. L. Loomis, who thought it could not be more finished as it related to the principles of acoustics in diagnosis of diseases of the chest; but it had brought the subject down to the practical application of those principles and left it there to be carried farther by each hearer. Dr. Loomis regards four qualities of sound as of everyday use to the diagnostician—pitch, quality, duration, and rhythm. He fully agrees with Dr. Leaming regarding the importance of cardiac rhythm, slight alterations of which being often of greater significance than murmurs without change in rhythm. He has never been able to separate what Dr. Leaming had referred to as the consonant resonance of the sacs from the other elements of the respiratory murmur.

Foreign Correspondence.

JOTTINGS FROM AROUND THE WORLD.

Curative Influences of a Long Ocean Voyage. —Victoria Eye and Ear Hospital.—Scrofulous Arthritis.—Conservative Surgery.—Operations for Hernia.—Antisepsis.

Melbourne, Oct. 25, 1888.

The curative effects of ocean climate in certain cases of sickness are now becoming better known each year. Dr. William S. Wilson, of England, has done much in his writings to make the ocean better appreciated as a health resort.

One of the essential points in obtaining the full benefit of the sea trip is to make it long enough. Now our transatlantic steamers make the trip from New York to England in about a week, and this is far too short a time to get the constitutional changes to be hoped for in an ocean climate. The trip to the South Seas can now be made with comfort, and through the finest of climates; the novelty and this constant diversion are factors not to be forgotten. Someone has said that the north Atlantic is the stormiest water in all the world; many of us have had the experience of this, and moreover, it is almost always cold; the winds with icy breath blowing down from the Boreas regions chill one even in midsummer. But if one should travel over the southern route of the Southern Pacific Railroad to San Francisco, then take the steamer from there here, he would have one long extended summer all the way to Melbourne. Start when you please from the American metropolis of the Pacific; it is not cold, and be it July or January, the climate of the Pacific Ocean, from the enchanting Hawaiian Islands down through the dreamy softness of the Samoan group, on to the everlasting springtime of Northern New Zealand, even to the southern coast of Australia at Melbourne, will permit one long continued life in the air and sunshine. Surely this must be the future ocean trip of the invalid. One is scarcely embarked for Europe before he finds himself steaming up the Channel; here, day in and day out for weeks, he can draw in the ozone, every atom of the body feeling the good influence; here are new regions for him to see, new peoples to meet, new fish to catch in the waters, new stars to watch in the heavens. May I urge my medical brothers to give attention to the claims of the glorious Pacific as a health resort? The heat of the tropics during the few days that it requires

to cross that region is not so oppressive as is often imagined. I have seen many a hotter term in Philadelphia. To dress or almost to undress in light and cool clothing, lie lazily under the canvas deck-covers, and simply breathe, doze, and dream away the day is to a hard-worked man a state of bliss; and as evening in these regions comes on, almost always the air is delightfully cool, and often a light wrap is not amiss.

From my personal experiences I can say that this prolonged ocean trip is a God-send to those troubled with insomnia. My own sleep soon amounted to fifteen or twenty hours a day; and oh! what rest, away from all noise, in an air so pure and sweet, with that delightful salty smell which used to refresh me so much on nearing Atlantic City on a hot summer afternoon! How many days did I promise myself that I would certainly do some reading and some writing, and would sit down on my steamer-chair on deck, only to find myself an hour afterward just emerging from a nap, my note-book rolling about the deck, and my lead-pencil overboard riding the waves of the blue Pacific. My dear doctor, have it as a treat in store to make this trip among the islands of the South Seas. Now, speaking entirely from the experience I have gained from my own trip and from the conversations I have had with both patients and physicians who have made the same voyage, there are some diseases which seem to be especially benefited by a long ocean voyage; among these are: 1. Early consumption — during the premonitory stage; in these cases the utmost advantage is to be gained, often complete cure, and always arrest of the progress of the disease. But *when cavities are forming do not send* the patient. 2. Bronchial troubles are helped by getting the patient away from the severe winters of the north and giving him a long summer in the tropics or sub-tropics; such a person on coming to land should not go to Melbourne to reside, but should select a drier place, some part of New South Wales, or as far north as Queensland, more under the tropics. 3. For the after-effects of an attack of pneumonia, where there is a little hardening remaining, or the general health has been left below par, this is just the trip; the pure air, the rest, the increased appetite, all conduce toward making a most complete cure. I have been disappointed so far in seeing much relief to the unfortunate asthmatic. I am prepared to assert that the nervous man or woman will find a long sea trip of the utmost benefit; if he or she has been disappointed in a European trip I do not wonder; but this voyage lasting weeks, and steaming, or perhaps better yet, sailing in and out among these islands, can not fail to make an impression for good if there is the slightest chance for any improvement. In such cases we get all the factors of a sea life to combine in doing their good offices for the weakened nervous system—rest, change, different mode of life, the breaking up of bad customs, getting out of one's self, the cheer, the social surroundings—all are so favorable. This is not theory; one need only go on such a journey to see many a patient day by day improve and make rapid advances toward health.

What has been said applies also to those cases classified as debility—the overworked professional man or merchant, the young girl who has overtaxed her strength, the languid, anemic girl or boy, the patient with amenorrhœa—all these patients are sure to improve.

I have just returned from the Victorian Eye and Ear Hospital of Melbourne. This hospital was founded in the year 1866 by A. S. Gray, M.R.C.S., Eng., who is the senior surgeon at the present time. It was my good fortune to find this genial Irish gentleman making his morning rounds, and I received a hearty welcome and an invitation to visit the wards with him. During the last year the hospital has received 406 in-patients, and treated 17,132 out-patients; the number of operations has amounted to 858. It is the only hospital of the kind in the colony of Victoria, and many of the patients are from the country districts. Mr. Gray expressed regret that the students did not take more advantage of this rich clinic: this morning there was not one in attendance; sometimes there are a dozen or so, but student-like, attendance is small unless it is compulsory. This institution receives some support from the Government, but the most of the funds are from private sources.

The surgical staff consists of two Honorary Surgeons and one Honorary Assistant Surgeon. Mr. Gray has been elected a life surgeon, in recognition of his being the founder of the institution. The other surgeons are elected for ten years, and the assistant for five years. One hundred and eleven cataracts were operated on during the year. Of all the operations performed only ten were on the ear. The standard treatment for purulent ophthalmia is with five or ten grain solution of nitrate of silver. Mr. Gray said that if he saw the patient early enough he never lost an eye under his

treatment. I was struck with the primitive way the drops were put into the eyes of the patients: a common quill cut square was dipped into the solution, and then carried to the eye and a few drops allowed to trickle in between the lids. Many of the little wrinkles so well known in America are not used here. American adhesive plaster of the newer kinds is much used and greatly liked; the Doctor expressed his great indebtedness to "you Yankees" for this kind of plaster.

I trust that my many remarks against the clinical service will not be construed as derogatory to the skillfulness of the clinicians. In this eye service, for example, the masterly hand of a well-drilled and thorough practitioner was shown at every move, and by every remark made concerning the case in hand. I do not propose to allow myself to fall into the error of praising without reserve everything met with simply because it is foreign; and on the other hand I want to steer clear of as great an error of condemning everything simply because it is foreign.

In referring to the statistics of blindness, it is found that Victoria has a good record, for while Portugal is said to have the greatest number of blind to each 10,000 persons living—21.90—New Zealand has the least, only 2.82; and then comes Victoria with 8.60.

During a visit to the Melbourne Hospital when Mr. Ryan was on duty, I saw a very interesting case of complete (scrofulous) degeneration of the wrist in a man 30 years old. The entire structure was soft and broken down; the operation proposed was resection, and if this did not prove successful, then amputation, one or the other of these being the only thing which could be done. Mr. Ryan has been successful in a number of cases of resection in such conditions in getting a fair hand left; only a short time ago, in a case which in his judgment admitted of amputation only, he was forced into resection by the wishes of the family; the result was most gratifying, the amount of usefulness and the entire progress of the case being such as to teach the importance of conservative surgery. On this very account the next case coming under treatment had been given the advantage of a chance. The man had a hand terribly crushed; a trip-hammer had fallen on it and mashed it out of all recognition as a hand; but we saw the hand almost healed, with two fingers left, so that it will be of use to the man in many ways. We then saw a healthy looking wound following an operation for strangulated femoral hernia. A young woman 20 years old was engaged in exercising with dumb-bells and Indian clubs, when she became faint; this was followed by vomiting, pain, and other symptoms indicating strangulation of the bowel. The free application of ice and mild taxis not being attended with any results, an operation was done within twenty hours, and an exceedingly tight stricture was found, with the sac in the liveliest state of congestion. Doubtless if the operation had been delayed only a few hours the result would have been quite different. It is not often that a medical man can feel quite as sure as the operator in this instance was that he has snatched a case from the grave. The great point in Mr. Ryan's practice is, in all those cases in which it is a question of operation or death, to operate early. Of the 18 patients he has operated on for strangulated hernia since last May he has lost but one, and this was an old man of 70, very feeble and partly paralyzed.

I find extreme antiseptic notions are not held here. Mr. Ryan was a pupil and a clerk of the famous Lister, yet he has dropped the rigid rules of the system called after his great master.

The spray is only used when the abdomen is to be opened, and then it is only allowed to play in the room for a time before the hour appointed for the operation. Bichloride is freely used as a wash and for the usual antiseptic purposes; iodoform dusted from a pepper-box is used *ad libitum*.

The walls of the hospital wards are of brick and painted with silica paint, which permits of free washing and hard scrubbing; the floor is of wood and well waxed; a good circulation of air is obtained, and, take it all in all, they seem to get about the same results as those who never operate without making the fearful onslaughts on the bugs which are supposed to hang about the operating-room as sea-gulls after a ship, waiting for some delicate morsel to feed upon. Ryan admits that Listerism has done much good in causing surgeons to be more careful in the ordinary laws of cleanliness. As far as I can learn, not a surgeon in Melbourne practises extreme Listerism.

C. C. VANDERBECK.

—The sanitarium at Youngstown, Ohio, was entirely destroyed by fire on Dec. 12. Eight patients were carried from the burning building on cots. The fire was caused by the combustion of natural gas.

LETTER FROM BERLIN.

Treatment of Poisoning with Carbonic Oxide.—Poisoning with Sulphonal.—Pulverized Sugar as a Remedy in Diphtheria.—A New Peptone.—Death of Prof. H. Von Bamberger.—A Princely Physician.

BERLIN, Nov. 30, 1888.

With the return of cold weather the unsightly German earthen-ware stove comes into use, and cases of grave poisoning with carbonic oxide are recorded in all parts of the empire.

Paul Guttmann, the well-known Chief of the *Moabit Krankenhaus*, has just delivered an interesting clinical lecture on the subject, which your correspondent has taken down in short-hand for the MEDICAL AND SURGICAL REPORTER. The following *résumé* contains the more important parts of the lecture. Two young girls were brought to the *Moabit Krankenhaus*, poisoned with carbonic oxide. They had forgotten to open the valve of the treacherous *Kachelofen* (earthen-ware stove). One girl was dead beyond hope of resuscitation, and the other one was in a state of profound coma. There was no reaction on irritation of the cornea, nor on powerful electrical irritation. Respiration was difficult and so irregular that its stoppage was looked for every moment. The cardiac beat was small and frequent. The patient was conveyed to the Hospital at 7 o'clock A. M., and was immediately placed in a large and airy hall, where artificial respiration was begun and persisted in up to 4 o'clock P. M. When no signs of recovery had appeared by that time, and injections of ether and Faradization had proved equally useless, transfusion of defibrinated blood was resorted to. An assistant physician offered his cephalic vein and six ounces of defibrinated blood were injected into the patient's vein. But even this measure did not prove successful. The girl remained in the same condition for two days and a half. Then œdema of the glottis set in and necessitated tracheotomy, which was followed, however, by death. The girl had been in deep coma altogether for eighty-two hours. The blood showed after death the well-known cherry-red color. Guttmann has observed ten cases of carbonic oxide poisoning within the last nine years; six of the patients recovered, including two whose illness was grave. As to the interesting question whether or not transfusion of blood is of value in this intoxication, Guttmann has always held that the usefulness of the procedure is very limited on account of the naturally scanty quantity of blood which can be transfused. He believes that fresh air is by far the most important and most reliable remedial agent. Experimental researches have also demonstrated that carbonized blood when shaken up with oxygen, or even with atmospheric air, soon regains its normal color.

Prof. Fürbringer, Chief of the Friedrichshain Hospital, who has observed six cases of this intoxication, made some interesting remarks on the subject. Death, he said, ensues not so much from decomposition of the blood, as from the action of the poisoned blood on other organs. He fears the sequelæ of the poisoning more than the poisoning itself. Another interesting question is as to the cause of œdema of the glottis. It is now known that this complication does not arise from the action of the carbonic oxide, but from the irritation caused by the products of dry distillation which are produced by the burning objects.

Sulphonal, the now fashionable hypnotic, is the subject of very varied professional opinion. Some extol it, others condemn it. The truth probably lies, as usually happens, between the extreme statements. Sulphonal has a clearly defined usefulness, and belongs not so much to the class of narcotic agents, which produce sleep by stupefaction, as to the remedies which assist the natural periodical desire for sleep. The new drug is, however, by no means so harmless as has been hitherto asserted by its manufacturers. Dr. Bornemann has just reported a case of severe poisoning resulting from the administration of the drug. The patient, to whom sulphonal was given for insomnia caused by cerebral excitement, was a physician. The result was a pronounced intoxication showing very complicated symptoms. There was a distinct interference of co-ordination, first in the lower and later in the upper extremities. He could not, for instance, raise a cup of coffee. A very prominent feature of the poisoning was his perverted feelings and illusions. The patient believed he had two heads, four feet and arms, etc.; or he believed he was on a boat or in a railway-car, and that someone was about to kill him. These illusions may be termed reflectory. The ataxia referred to is a central one, as it remained unchanged no matter whether the eyes were opened or closed. This distinction between central and sensory ataxia has been made by Prof. Mendel. The drug did not exert any unfavorable influence over the heart and circulation, which appears opposed to the warning of

Dr. Schmey not to use sulphonal in angina pectoris and arterio-sclerosis.

There is just now great barrenness in the therapeutical novelty bazaars. Not a single new antipyretic, anæsthetic, or hypnotic has been discovered for some time. So it is well nigh time that something new should turn up, even if it is only a new use for an old friend, such as pulverized sugar, which Dr. Lorey, of Frankfurt-on-the-Main, considers the best remedy in diphtheria in existence. American physicians no longer put any faith in therapeutical recommendations coming from abroad. True, in the case of pulverized sugar the first requisite of a remedy—*ne noceat*—is well fulfilled. Dr. Lorey, who has used this remedy for nearly a year in numerous cases, is emphatic in declaring pulverized sugar the most satisfactory remedy in diphtheria. He refers to the indications of diphtheria as established by Prof. Oertel, of Munich, viz., to favor the disintegration of the false membrane and to induce copious suppuration. Both indications, Lorey says, are fulfilled by finely pulverized sugar in the most satifactory manner. The remedy is applied with an ordinary hand-ball insufflator. The sugar is blown over the tonsils, pharyngeal wall and posterior nasal cavity. After tracheotomy the sugar is of course blown through the canula. Dr. Lorey gives the following results of eighty observations of the treatment of diphtheria with pulverized sugar: 1. The duration and extent of the diphtheritic deposit are materially lessened by the application of sugar. 2. The bad odor frequently observed is not noticeable when sugar is used. 3. The mucous membranes of the tonsils and pharynx appear fresher and more highly vitalized. The membranes are lifted up and a copious mucous secretion takes place. 4. The cough is suppressed.

The favorable influence of sugar on granulations has long been known, and sugar has, therefore, often been incorporated into dressing materials of wounds. It is also said to have an analgesic and antiseptic effect. The entrance of finely pulverized sugar into the folds of the mucous membrane causes a current of juices toward the surface in order to effect the solution of the sugar. Thus bacteria are probably carried to the surface and are there rendered harmless, either by the concentrated solution of sugar or by the generation of hostile bacilli. The usual constitutional treatment of diphtheria is of course to be observed. Dr. Lorey uses also small doses of apomorphine, and iron as a tonic after the acute stage has passed.

Prof. Fürbringer has introduced to the profession a new peptone manufactured by de Weyer, of Brussels. All peptones at present in the market are far from satisfactory. Weyl's peptone has thus far been the best in use; it contains 50 per cent. of albuminose, but only 6 to 7 per cent. of genuine peptone. The preparations of Kemmerich and Koch are still inferior. The great objection to Weyl's peptone is its horrid odor and its lack of stability. Weyer's peptone contains about 20 per cent. of peptone according to its manufacturer's statement, has an agreeable taste and odor, but is rather expensive, five ounces costing fifty cents.

The profession has sustained an irreparable loss through the death of Prof. H. von Bamberger, the eminent pathologist and clinician of Vienna, known the world over through his numerous and excellent writings. He was a pupil of Rokitansky and Skoda, and began his career as an assistant to Oppolzer. In Würzburg he taught at the same time as Scanzoni, Kölliker, and Virchow. Since 1872 he has belonged to the University of Vienna. His best known work is on diseases of the heart.

A few days ago Berlin had the honor of entertaining within its walls a man who is both a prince of a royal house and an active physician; this distinguished man is Dr. Carl Theodor, Duke of Bavaria, the well-known ophthalmologist who for his charity work in his specialty is worshipped by the poor of his home districts. He spent a few days in visiting the various clinics of Berlin.

J. S.

—The daily papers state that the case of Stewart, the drug clerk in Wichita, Kansas, who was sent to prison for over 10 years and fined $20,800 for selling liquor, has been revived by the re-arrest of Stewart upon the demand of the Assistant Attorney General. Stewart was released by the Governor after serving six months of his sentence. The Attorney General attempted to collect his fine and costs—about $50,000—by selling the building in which the liquor was sold. Failing in this, he had Stewart re-arrested upon the old charge. As the man is poor, he has a good prospect of remaining years in jail, if not again released by the Executive power.

The case seems a hard one, and no doubt will arouse much misplaced sympathy, in spite of the prisoner's persistent violation of the law.

PERISCOPE.

Clinical Value of the Superficial Spinal Reflexes.

At the meeting of the Bradford Medico-Chirurgical Society, October 2, 1888, Dr. Herbert Major read a paper on the clinical value of the superficial spinal reflexes. Brief reference was first made to the reflex functions of the cord; the dependence of these reflexes on the integrity of the reflex loops consisting of afferent sensory fibres, gray substance of the cord, and efferent motor fibres; the purely spinal nature of the reactions; the frequent diffusion of the reflex excitations both in health and, especially, under certain morbid conditions in which the reflexes are exaggerated; the connections of the reflex loops on either side of the cord with the conducting tracts to and from the brain; and the normally greater activity of the reflexes in infancy and childhood than in adults. The series of cutaneous reflexes as given by Gowers and their respective reflex loops were then alluded to, attention being drawn to the statement of Gowers as to the possible absence in health of certain of the reflexes, especially the gluteal, lumbar, and sometimes the cremasteric; so that, he said, it is not to be inferred, from the absence of such reflexes alone, that the reflex pathway through the cord is impaired. Reference was next made to the views of other neurologists with respect to the relative constancy of these reflexes in health, as showing, probably, a further degree of normal irregularity in their occurrence than had been allowed by Gowers; and the opinion was expressed that such further limitations are necessary. The importance of a correct and fully adequate estimate of possible normal variations is evident. The modifications of the cutaneous reflexes in disorders of the nervous system were then considered. The facts were recalled that in cerebral paralysis the reflexes are lowered on the paralyzed side, probably as the result of irritation in the affected hemisphere of the brain; that they are liable to be excessive in diseases of the motor paths from the brain which diminish the cerebral control; and that they are lowered or abolished in affections involving impairment or destruction of any portion of the reflex loops, and consequent interruption of the reflex pathway. With respect to the reliableness of the superficial reflexes in diagnosis, stress was laid on the possible occurrence of disease of the cord outside the reflex loops, and, therefore, unindicated by reflex changes; on the frequent normal absence of the reflexes in the adult; in the occurrence of impairment only in reflexes, slight in degree possibly, and difficult of appreciation; and in the fact that, given an altered state of the reflex, the position of the lesion in the course of the reflex loops remains to be determined. On such grounds it was urged that no attempt should be made, in any case, to rely solely or mainly on any apparent irregularities in these reflexes, but only to utilize them with, and in subordination to, other evidence. Possibly their practical value in diagnosis, he said, has been over-estimated by others; but if this precaution is taken, and the precise significance of the reflexes duly borne in mind, they would be found of assistance in a certain proportion of cases; or, failing to assist, they would not, at least, lead into error.—*Medical Press and Circular*, Oct. 31, 1888.

Prevention of Chronic Joint-Disease in Children.

Dr. Leroy W. Hubbard makes the following suggestions as to the prevention of chronic joint-disease in children, in a communication to the *Medical Record*, November 10, 1888:

1. A careful inquiry by the surgeon into the hereditary history of each family which he may have charge of; and if a well-marked history of hereditary disease, especially tuberculosis, is found, a warning should be given to the parents of the dangers to which the children are exposed.

2. Instruction in regard to hygiene, diet, etc., with the endeavor to keep the nutrition of the children up to the highest point until they have passed the period at which they are most liable to contract a joint-lesion, viz., the period of puberty.

3. When tuberculosis is present in a family, either as phthisis pulmonalis, or as a joint lesion with an abscess, all sputa or discharges should be destroyed or disinfected; and healthy children should be brought as little as possible in contact with the sick. In this way the risk of direct contagion may be reduced to a minimum.

4. Instruction should be given in regard to the importance of any traumatism of a joint or the parts near it, however slight it may be. After such an injury, absolute rest of the joint should be insisted upon until all evidence of inflammation has subsided

and the function of the part is perfectly restored.

5. The prohibition of all sports or exercises which bring repeated traumatism upon one joint. Young children should not be allowed to go up and down stairs frequently.

6. After one of the acute exanthematous fevers, a considerable period should elapse before active exercise, such as running, jumping, or long walks, is allowed.

Poisoning with Nitrobenzol.

Dr. R. P. Rostoshinsky, of Tambov, records (*Proceedings of the Tambov Medical Society*, 1888, No. 7, p. 209) the case of a soap-boiler's cook, 53 years old, who, when looking about for spirits in her master's absence, came across a flask with nitrobenzene. Having found its *bouquet* very pleasant, and mistaking the fluid for some "fine sort of wine," she swallowed a large dose of it, and, a few hours later, was found lying unconscious on the kitchen floor. She was at once sent to a hospital. On admission, she was in a deep comatose state, pulseless, extremely cyanotic, "deadly-cold"; the respirations were few, labored, stertorous; the jaws spasmodically closed, the pupils dilated; the breath smelt of bitter almonds, the fingers and forearms were rigidly flexed, and the skin anæsthetic. Under the influence of analeptics (tincture of valerian under the skin, frictions, ammonia, etc.), the pulse returned. An attempt at washing out the stomach was made, but given up at once in view of a sudden arrest both of the pulse and of the breathing. After artificial respiration was kept up for one and a half hours, and repeated injections of valerian and musk had been given, the patient gradually recovered her pulse and breathing, and at the same time fell into a condition of high excitement with delirium. She began to shout and loudly moan, to toss about and struggle against everybody and everything. Several hours later, however, she became more quiet and able rationally to answer questions, and as rationally to lie: she denied having taken anything in particular, and said she had fallen ill from charcoal fumes. She complained of headache and abdominal pain; her speech was thick, the pulse accelerated and intermittent. Though she passed a good night, on the next day there were still present great prostration and considerable cyanosis. On the third day, fever (temperature 102.4°) set in, and lasted for six days, the temperature sometimes rising as high as 104.5°. Following the woman's request, the author discharged her on the ninth day, though her state was still rather weak.

Dr. Rostoshinsky draws attention to the following points. 1. Nitrobenzene is poison causing asphyxia—that is, a poison which acts first on the red blood corpuscles, destroying their property of absorbing oxygen (partly from the formation of aniline, as Letheby thinks, partly from the action of NO_2, as E. Pelikan states). 2. The respiration is affected before the cardiac action. 3. The nervous phenomena are of a secondary nature, and depend upon a disturbance in nutrition of the nervous system, arising from an abnormal composition of the blood. 4. Cases of poisoning by nitrobenzol are relatively rare. The above case is only a second one at Tambov. The first—a fatal one—was published by Drs. I. P. Poteschin and S. K. Olenin in 1871 (*Proceedings of the Tambov Medical Society*, 1871, No. 8). The Russian literature contains a series of works on the toxicology of benzene and its derivatives, the more important being the researches of E. Pelikan, Marlygin, Werner, Bogdanoff, Starkib, etc.

Pathological Anatomy of Addison's Disease.

Dr. Von Kalden, in a paper entitled "A Contribution to the Pathological Anatomy of Addison's Disease" (*Virchow's Archiv*, Band xiv, Heft 1, October, 1888), gives the following results of his study of the skin in two cases of Addison's disease: 1. The deposit of pigment in Addison's disease takes place in the deeper layers of the rete Malpighi, and in the outer layers of the epithelial cells of the hairy skin corresponding to them. 2. The pigment is not formed in these cells, but in the cutis, and from thence is carried by wandering cells to the place of deposit. 3. Every epithelial cell takes up the pigment from several such wandering cells. 4. Both the principles of general pathology and the relative position of the wandering pigment-cells and the blood-vessels make a blood-origin of the pigment probable. 5. But this origin is not in a disease of the vessel wall, and still less in hemorrhage, as such findings are not constant, and if generally present, are of a secondary nature. 6. An accurate investigation of the mucous membrane in further cases coming under observation promises, perhaps, further disclosures concerning the relation of the pigment to the coloring matter of the blood.

THE
MEDICAL AND SURGICAL
REPORTER.

ISSUED EVERY SATURDAY.

CHARLES W. DULLES, M.D.,
EDITOR AND PUBLISHER.

The Terms of Subscription to the serial publications of this office are as follows, payable in advance:

Med. and Surg. Reporter (weekly), a year,	$5.00
Quarterly Compendium of Med. Science, -	2.50
Reporter and Compendium, - - - -	6.00
Physician's Daily Pocket Record, - -	1.00
Reporter and Pocket Record, - - - -	6.00
Reporter, Compendium, and Pocket Record,	7.00

All checks and postal orders should be drawn to order of

CHARLES W. DULLES,
N. E. Cor. 13th and Walnut Streets,
P. O. Box 843. Philadelphia, Pa.

☞ SUGGESTIONS TO SUBSCRIBERS:
See that your address-label gives the date to which your subscription is paid.
In requesting a change of address, give the old address as well as the new one.
If your REPORTER does not reach you promptly and regularly, notify the publisher *at once*, so that the cause may be discovered and corrected.

☞ SUGGESTIONS TO CONTRIBUTORS AND CORRESPONDENTS:
Write in ink.
Write on one side of paper only.
Write on paper of the size usually used for letters.
Make as few paragraphs as possible. Punctuate carefully. Do not abbreviate, or omit words like "the," and "a" or "an."
Make communications as short as possible.
NEVER ROLL A MANUSCRIPT! Try to get an envelope or wrapper which will fit it.
When it is desired to call our attention to something in a newspaper, mark the passage boldly with a colored pencil, and write on the wrapper "Marked copy." Unless this is done, newspapers are not looked at.
The Editor will be glad to get medical news, but it is important that brevity and actual interest shall characterise communications intended for publication.

PHYSICIANS AND NEWSPAPER ADVERTISING.

The daily papers of Philadelphia, about December 10, contained an item stating that a member of the Luzerne County Medical Society had been expelled for advertising himself in the newspapers as a specialist; and one of these papers, whose idea of the proper scope of advertising may be measured by the fact that it has repeatedly given a prominent place to sensational reports of the joy of those who had drawn prizes in the Louisiana State Lottery, was very severe in its denunciation of the action of the Luzerne County Society.

As the case undoubtedly merits discussion, we have carefully investigated it, and will lay the facts before the readers of the REPORTER, with certain comments which we believe to be warranted by the circumstances.

A physician, while a member of the Luzerne County Medical Society, inserted a card in several of the county papers stating that his practice was "limited to the Eye, Ear, Throat and Nose," and that he would be, on certain days, at certain towns. After this he tendered his resignation to the Society. The resignation was referred to the Censors, who reported, in part, as follows:

"It is not necessary for us to enter into any details as to the character of the infringements of the Code of Ethics and of the methods customary in the profession, which Dr. —— admits that he permitted himself to indulge in *before* his offer of resignation and in which he has persisted up to the present time, while still formally a member of the Society. No action having been taken upon his resignation, his connection with the Society cannot, of course, be severed without its consent.

"We do not consider Dr. ——'s excuses for his violation of the laws and precepts of the only code of which we have any knowledge, to be valid: we recommend that the Society decline to accept his resignation and that his name be expunged from a list of its members."

This report was signed by all three members of the Board of Censors, and the recommendation was adopted by the Society without dissent.

From this it will be seen that the Luzerne County Society did only what any society might properly do to a member whose impatience to follow his inclinations was so great that he could not wait until he had been released from his voluntary pledge to abide by its rules. The case, then, was not primarily one of medical ethics, but rather of insubordination on the one hand and of a dignified assertion of authority on the

other, in which the Luzerne County Society was undoubtedly in the right.

But, in addition to the question of discipline involved, the specific offense charged —and admitted—deserves notice.

Newspaper advertising by medical men is condemned by the Code of Ethics, to support which all the Societies in affiliation with the American Medical Association are pledged. Besides this, the general sentiment of the civilized world is opposed to this form of competition among physicians, for the sufficient reason that its natural tendency would be to make the practice of medicine more mercantile than is consistent with its dignity. As a mere matter of morals, no one can question the right of any man to announce his occupation and his address, or even to state—as merchants constantly do—his opinion of the superiority of what he offers to the community or of its cheapness; but members of a liberal profession cannot do this without degrading it, and those who defy the general opinion in this respect must expect the disapproval of all who desire to see the dignity of the profession maintained.

It is to be regretted that newspaper advertising is not uncommon in certain parts of the United States; but it is to be hoped that it will disappear with the conditions which have given rise to it, and that, before long, medical men everywhere will restrict themselves to those unpretentious methods of securing practice which are most consistent with self-respect, and most likely to win the respect of the community.

AN IMPORTANT DECISION.

A decision of much importance to physicians was recently delivered in the Orphans' Court of Philadelphia, by Hon. Wm. N. Ashman, and is reported in the *Legal Intelligencer*, Dec. 7, 1888. A gentleman living in the city was attacked with a disorder of the brain, and in the absence of his family physician another medical man was called, by the business partner of the patient, to attend him. The medical man, feeling that additional counsel would be of advantage to his patient, asked and secured the professional services of Dr. William Hunt. After three weeks' illness the patient died, and payment of Dr. Hunt's bill for professional services was refused, on the ground that he had not been employed by the patient individually, and that the physician who engaged Dr. Hunt had no authority in law to do so.

Dr. Hunt then brought suit to recover and his case was argued by Wm. C. Hannis, Esq., whose presentation of it led to a unanimous judgment of the Court in favor of Dr. Hunt, which was delivered by Judge Ashman. The opinion makes it clear that a physician may recover for his professional services when he has been called in by an accredited agent, or even by a self-constituted agent, when his own conduct, or the act of God, makes such a summons necessary for his own preservation or for the well-being of society.

The particular question involved in this case was, whether or not a physician attending a patient unable to decide what was best for himself was authorized to call in another physician to aid him in treating the patient. This question the Court answers in the affirmative. After stating the rule which governs the conduct of agents in general, Judge Ashman says: "The spirit in which this rule is to be expounded should be in unison with the character of the relations which the parties have themselves established with each other, and should be liberal just in proportion as those relations become more intimate and involve delicate questions of duty and responsibility. To say that the discretion to act promptly in an emergency, which a patient necessarily gives to his physician, is larger than that which a merchant gives to his drayman, is simply to say that a man will resign more of his own authority to the will of the person who is to save his life, than to that of the person who is to take care of his trunks. The trust,

which includes the power for its exercise with which the patient vests his physician, is often practically unlimited, because it may require to be executed at a time when disease has taken away all ability to restrict it. The patient is not to be left to die, on the plea that during such an interval no act of his adviser can be valid, for want of his direct approval. Or the doctor may suspect the presence of an obscure disease, which, if it exists, demands heroic treatment. To communicate the suspicion to the sick man will probably finish him on the spot; may he not solve the doubt by consulting a specialist?"

In defining the mental condition which would justify a physician in acting as agent for his patient, in calling a consultation, Judge Ashman adds: "It is not necessary, for the purposes of this argument, that the decedent should answer to the legal definition of a lunatic. If he was so far mentally disabled as to be unfitted for the proper conduct of his affairs, it was sufficient to justify the action of the claimant. We do not mean to displace the rule of liability from its footing of strict necessity. The burden of proof that in the absence of an express contract, an implied contract has arisen from the exigencies of the case, must always rest upon the claimant. That burden was fully met in the case referred; and the claim of Dr. Hunt was allowed."

The fact that this decision was delivered by a Judge who is exceptionally conversant with the legal and equitable principles which should govern the relations between physicians and their patients, leaves no room for doubt that it will establish a precedent of great value to medical men.

VISITING NURSE SOCIETY.

There is an institution in Philadelphia which, under the name of the Visiting Nurse Society, undertakes a work that cannot fail of being a great convenience to physicians and a great blessing to a certain class of patients. The object of the Society is to provide good home-nursing for those whose means are too limited to permit them to pay full price for trained nurses, and who are not strictly hospital patients. For such persons it provides gratuitous nursing, though any sum which the patients feel able to pay is accepted as assisting the Society further to prosecute its labors, and as contributing to the self-respect of the beneficiaries. The aid of the Society is extended only to patients under the treatment of a physician. Suitable nurses for surgical, obsterical and medical work are furnished, and emergency calls are received at any time during the twenty-four hours, and answered as promptly as possible.

The field of usefulness open to an association of this kind in a large city is very extensive. Anyone who has had much experience with the poor, even with patients whose means are merely limited, must often have met with cases in which it would have been of incalculable advantage to have had the temporary presence of an intelligent and kindly woman, to assist him in his work, or to supplement it.

It is pleasant, therefore, to be able to call attention to the Society which in Philadelphia undertakes to supply this need, and to commend its example to the imitation of other cities which are not so favored.

FOOD ADULTERATION.

We are glad to call attention to the fact that a comprehensive bill will be presented at the next session of the Legislature of the State of Pennsylvania to prevent fraud and adulteration in the preparation and sale of food. The bill has been prepared by the American Society for Preventing the Adulteration of Food, and provides for the establishment of a Bureau of Adulteration at Harrisburg in connection with the State Board of Health.

The chief officer is to be supplied with a chemical laboratory, and shall appoint a force of Inspectors and clerks, the Inspectors being duly qualified graduates of medi-

cine. The expenses of the Bureau are not to exceed $15,000 per year.

Inspectors will be required to visit breweries, bakeries, dairies, factories, markets, and stores where either food or medicines are prepared or sold, and to obtain samples for analysis. The bill describes what comprises food adulteration in specific instances, and provides a penalty of fine or imprisonment, for violation of the law.

Such a bill should have the support of all medical men as well as of all good citizens. It is exactly in the line of our Editorial on "The Need for Public Analysts" in the REPORTER, March 3, 1888, and we hope that the suggestions there made will not be overlooked in perfecting the proposed bill.

CHILD-BIRTH AFTER EXCISION OF THE RECTUM.

In the REPORTER, February 18, 1888, we gave a description of the method proposed by Prof. Kraske, of Freiburg, for the removal of cancer of the rectum, and referred to the excellent results he had obtained by it in a series of eight cases. An interesting sequel to an operation of this sort is reported by Dr. Lihotzky in the *Wiener med. Presse*, Nov. 18, 1888. The patient was a woman who was operated upon last year according to Kraske's method by Dr. Hochenegg, and who on Oct. 26, 1888, gave birth to a child, under the care of Prof. Breisky. In the absence of a considerable portion of the posterior wall of the pelvis, and because the levator ani and the ligamentous structures at the outlet of the pelvis had been divided, it was expected that the delivery would be irregular. But the expectation was not fulfilled. The delivery was perfectly normal.

This result suggests incidentally some very interesting reflections in regard to the mechanism of labor; but its chief interest lies in the demonstration that such perfect functional results may follow an operation of such gravity and extent as Kraske's operation of excision of the rectum for cancer.

PAMPHLET NOTICES.

[Any reader of the REPORTER who desires a copy of a pamphlet noticed in these columns will doubtless secure it by addressing the author with a request stating where the notice was seen and *enclosing a postage-stamp.*]

164. FIRST CONTRIBUTION TO THE STUDY OF FOLK-LORE OF PHILADELPHIA AND ITS VICINITY. By HENRY PHILLIPS, JR., Philadelphia. From the *Transactions of the American Philosophical Society*, March 16, 1888. 12 pages.

165. THE PALATAL RUGÆ IN MAN. By HARRISON ALLEN, M.D., Philadelphia. From the *Proceedings of the Academy of Natural Sciences, Philadelphia*, September 25, 1888. 19 pages.

166. UEBER NATUR UND BEHANDLUNG DES FURUNKELS BESONDERS IM AEUSSEREN OHRE. VON DR. B. LOEWENBERG, Paris. From the *Deutsche med. Wochenschrift.*

164. Mr. Phillips's pamphlet contains one hundred and twenty-two popular sayings, in rhyme or prose, embodying certain beliefs which fall under the general head of superstition. Some of these have a bearing upon medical experience, as, for example, that "fasting spittle will cure a sore eye"; and that "a horse-chestnut carried in the pocket will cure piles"; and many of them will prove very amusing, we fancy, to those who have often acted upon them, but who never expected to see them in print.

165. With his usual thoroughness Dr. Allen has studied a subject which would be unlikely to attract the attention of one less habituated to accurate scientific observation, and has deduced from his study conclusions of a very practical nature. The form and distribution of the rugæ of the hard palate in man would probably be regarded by most medical men as matters of little consequence, and they will be surprised to learn that they may serve as a means of identification of individuals, and that they furnish indications of the existence of certain constitutional diseases, as well as of predisposition to nasal catarrh.

Dr. Allen's pamphlet is of special interest to the student of animal morphology, and suggests lines of investigation in pathology which few, we believe, would suspect who have not made themselves acquainted with its contents.

166. Dr. Loewenberg is a believer in the parasitic origin of boils, and attributes their multiplication in the same individual to auto-infection. He also believes that they are contagious. As a consequence he opposes the method of treating them which consists in the application of poultices and making incisions into them, and recommends the local application of a saturated solution of boric acid in alcohol. For boils in the wall of the meatus of the ear, he aids the application of the parasiticide by a previous light scratching of the epithelium with a heated needle. This method is painless, and much preferable in his opinion to incising the inflamed and exceedingly sensitive tissues.

His pamphlet is very interesting, and presents a very hopeful view of the management of this troublesome affection.

—The Hoagland Laboratory in Brooklyn was opened December 15 with an address by Prof. H. Newell Martin, of Johns Hopkins University, Baltimore.

CORRESPONDENCE.

Apostoli's Treatment of Fibroid Tumors of the Uterus.

To the Editor.

Sir: In the Reporter for Dec. 1, 1888, your reviewer of the American System of Gynecology, vol. ii, takes me to task in the following paragraph:

"Sutton gives a good exposition of the subject of Non-Malignant Tumors of the Uterus. We cannot consider the section on treatment, however, as complete. The statistics of the results of operative methods are only brought up to '82–'84, and no mention is made of Thomas Keith's changed views as to the justifiability of hysterectomy. No opinion is expressed as to the value of electrolysis in the treatment of fibroids; we are simply referred to the article by Rockwell in Vol. I. The author concludes that fibro-cystic tumors should be removed, but not necessarily the solid tumors; that removal of the uterine appendages for fibroid tumor is unjustifiable when the tumor can be removed per vaginam; that removal of the appendages is especially indicated in small non-cystic fibroids; that probably 29 out of 30 cases should not be operated upon, as the symptoms do not justify operation. These views are sound, but we believe that the indications for electrolysis should have been defined."

In writing for a text-book it was my aim to give that which I knew to be "sound" and to omit anything doubtful or still on trial. Apostoli's method is still on trial. I myself am at it. Concerning this method I am convinced of several things. On the affirmative side, that it will arrest the hemorrhages; reduce the size of the uterus; if in doing the latter the blood supply to the tumor is partially cut off, it will reduce the tumor to some degree. On the negative side, that electrolysis in the tissues of the tumor and consequent reduction is all rot; that the method is not free from danger; that it opens up an immense field for quackery, only equalled by Bergeon's treatment for consumption; that the fact that subperitoneal fibroids are not affected by the treatment is against its specific claim; that it is a painful treatment, and that all that it accomplishes may be accomplished by less dangerous and less painful means. If I am mistaken in these conclusions I will discover it, for the reason that I try things for myself before I advise my readers in reference to them finally. Again in 1887, in New York, Dr. Apostoli told me, in the presence of Dr. Bantock of London, that he had never cured a fibroid tumor by electrolysis. It is a curious thing to me that while the master fails to cure, his pupils succeed. I am not disposed at present to condemn this method, but I am quite sure that if becomes too public property, that it will kill more than hysterectomy has ever killed. Every tyro may try Apostoli's method, but not hysterectomy more than a time or two.

The method bids fair to be profitable to the doctors, if not to the patients, who will as a rule find the good done very ephemeral. But, as I have already said, it is on trial and I have had no accidents with it, great or small, and I have already said on the affirmative side my convictions as to its merits, and on the negative as to its demerits. I hold that my article in Vol. ii, on the treatment of Fibroid Tumors of the Uterus, can be depended upon by those who favor the work by a study of my article. If my reviewer will take that article for his guidance he will not go far wrong in the next.

Yours truly,

R. Stansbury Sutton, M.D.

419 Penn Ave.,
Pittsburgh, Pa.,
Dec. 10, 1888.

Portland Powders.

To the Editor.

Sir: Could you state in the Reporter (1) the composition of the remedy for rheumatism or gout, known as "*Portland powders*," and (2) the reasons which may be given for considering it a dangerous remedy.

Also (3) the formula for the remedy widely known as "*Velpeau's compound.*" Concerning this latter I wish to learn the entire formulæ as I understand there is at least one formula for medicine to be taken internally, besides the injection. I have questioned several physicians of long experience in medical practice for information concerning these prescriptions without avail.

Yours truly,

G. M. Foskett, M.D.

North Dana, Mass.,
Nov. 20, 1888.

[1. "Portland powder" according to the original prescription was made of equal parts of the roots of Aristolochia rotunda, and gentiana lutea, of the tops and leaves of tencrium chamædrys and erythræa centaurium, and of the leaves of ajuga chamæpitys.

2. There is no reason at all why it should be considered in any proper sense of the term "a dangerous remedy."

3. Do not know.—Editor of Reporter.]

Multiple Congenital Herniæ.

To the Editor.

Sir: Aug. 5, 1888, I was called to attend Mrs. B., an Italian primipara. Her labor was normal, but tedious. After ligature of the funis, I made my usual examination of the child for deformities, and was surprised to discover a right and left inguinal, a right ventral, and a *dorsal* hernia—the latter extending from about the seventh rib to the crest of the ilium. Opposite this, and in the middle of the spinal column, was an ulcer, about four inches in diameter, and of a light grayish color. In addition to the above, there was talipes varus of both feet. The ulcer healed rapidly. The child, except for its deformities, is now well and hearty. Yours truly,

Frank Post Butler, M.D.

What Cheer, Iowa,
Dec. 4, 1888.

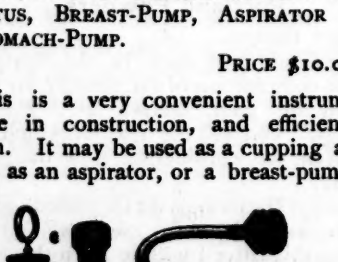
New Instruments.

Any instrument or apparatus sent to the Editor of the Reporter for notice will be treated like a book sent for review. Illustrations suited to our columns will be published with the notice, if cuts accompany the instrument.

Dr. W. S. & F. Black's Cupping Apparatus, Breast-Pump, Aspirator and Stomach-Pump.

Price $10.00.

This is a very convenient instrument, simple in construction, and efficient in action. It may be used as a cupping apparatus, as an aspirator, or a breast-pump, or



as a stomach-pump. The barrel and piston are made of hard rubber, the cups being of glass. The valves act automatically. The capacity of the syringe barrel is about f℥iij. Its action is smooth and easy, and we believe it is calculated to be of great service to physicians, and especially to men practising medicine in the country.

Notes and Comments.

Therapeutic Value of Lipanin.

Lipanin, which was described in an Editorial in the Reporter, March 10, p. 311, has received further study at the hands of Dr. O. Hauser, who publishes a communication on the subject in the *Zeitschrift für klin. Medicin*, Band xiii, Heft 5, 6. We learn from an abstract of his article in the *Wiener med. Presse*, Nov. 4, 1888, that lipanin resembles in appearance very closely the yellow unpurified cod liver oil, but is without the disadvantages of the latter. It was employed by Hauser in 38 children, varying in age from fifteen months to thirteen and a half years, and suffering with disturbed nutrition, rickets, anæmia, scrofula, and tuberculosis. In the greatest number of cases the lipanin was taken willingly without any addition to it, and was well borne. Disturbances in digestion, such as are present when cod liver oil is given, were never observed. Moreover, it could be taken continuously during the hot season. In all the cases in which this was to be expected, an increase in weight occurred. It is almost completely absorbed and appropriated. It is used in about the same dose as cod liver oil, and can be combined with other medicaments, such as creasote, menthol, phosphorus, etc.

Naphthol Bandages.

Prof. J. L. Reverdin has described his experiments with bandages impregnated with β-naphthol. He was incited to try it by Bouchard, who recommended β-naphthol in the disinfection of the intestinal canal as an agent but very slightly poisonous. Reverdin employed the naphthol as a powder, which he dusted upon wounds, and as a ten to fifteen per cent. gauze. The latter was first sterilized at a temperature of 130° C. (266° F.) and then impregnated with an ethereal solution of naphthol. He has employed the naphthol bandages in 38 operations, of which 18 were cases of tumor-extirpation, 4 were amputations, 1 was a laparotomy, 3 were radical operations for hydrocele, etc. In 23 cases primary union was obtained without a trace of suppuration even at the opening for drainage; in 12 cases there was delayed primary union; and in 3 cases suppuration occurred as the result of some mistake in the technique of the operation.—*Wiener med. Presse*, Nov. 4, 1888.

Vocal Music and Prevention of Phthisis.

At the meeting of the Medical Society of Virginia, Oct. 23, 1888, Dr. C. E. Busey, of Lynchburg, Va., read a paper on the cultivation of vocal music in schools as one of the means of preventing phthisis. He states it as a well-known fact that those nations which are given to the cultivation of vocal music are strong vigorous races, with broad expansive chests. If an hour a day in public schools were devoted to the development of vocal music, there would not be the sad spectacle of the drooping, withered, hollow-chested, round-shouldered children which confronts us now. There is too great a tendency to sacrifice physical health upon the altar of learning. Vocal music is gymnastic exercise of the lungs, producing increased expansion of the lung tissue itself. The lungs in improved breeds of cattle, which naturally take little exercise and are domiciled much of the time, are considerably reduced in size, when compared with those animals running at liberty; and so it is with the human beings who lead inactive lives. Phthisis generally begins at the apices of the lungs because these parts are more inactive, and because the bronchial tubes are so arranged that they carry the inspired air with greater facility to the bases than to the apices. During inactivity a person will ordinarily breathe about 480 cubic inches of air per minute. If he will walk at the rate of six (*sic*) miles an hour, he will breathe 3,260 cubic inches. In singing, this increases more than in walking, as singing well requires all of the capacity of the lungs. The instructor of vocal music, in addition to his musical education, should understand the anatomy and physiology of the respiratory organs.—*Virginia Medical Monthly*, Nov., 1888.

Extirpation of the Rectum.

At the last meeting of the Imperial-Royal Medical Society of Vienna, Dr. Ullmann showed a case in which he had performed extirpation of the rectum after the method of Kraske. On her admission into the clinic of Prof. Albert, the patient stated that she suffered from severe pains during evacuation of the bowels; and she noticed that the feces were mixed with pus and blood. Examination showed the presence of a circular ulcerating carcinoma at a distance of ten centimetres (about 3¾ inches) upward of the anus. Some days after admission colotomy had to be resorted to, owing to very threatening symptoms of ileus. Later on, extirpation of the rectum was performed, after the method of Kraske, of Freiburg. Starting from the middle of the os sacrum two sections were made, which encompassed the whole orifice of the anus; after extirpation of the coccyx, and resection of the os sacrum, the rectum was divided upward, and the end of the rectum was sutured into the posterior angle of the wound. The patient recovered in a short time, and the weight of her body increased by ten kilogrammes within two months after operation.—*Medical Press and Circular*, Nov. 21, 1888.

Poisoning with Chlorate of Potash.

In number 41 of the *Deutsche med. Wochenschrift*, Dr. Bernard Schuchardt records three cases of fatal poisoning with chlorate of potash: one observed by Dr. Mendelsohn, of Berlin, and one seen by Dr. Sabarth, of Lötzen, in which the potash was taken with suicidal intent. The first patient died in fourteen hours after being received into the hospital; the second in twenty-six hours after taking the poison. The third case was observed by Dr. Lacassagne, of Lyons. The patient was a woman who was given chlorate of potash in order to produce an abortion.

Foreign Body in the Ear.

A unique case, says the *Weekly Med. Review*, Nov. 17, 1888, occurred in the practice of Dr. William Caston, of Corsicana, Tex. A child, three years of age, the daughter of an intelligent general practitioner, had a discharge from the right ear for two months. The father of the child had treated the ear by syringing it out with warm water and blowing powdered boracic acid into the canal.

When the little patient was brought under Dr. Caston's care, he cleansed the auditory canal and on examination found a hole in the drum membrane, of the size of about one-third the surface of the membrane. The syringe was again used in order to cleanse the middle ear, and a small lump was brought away which was found to be the shell of a house-fly covered with pus. The fact that the soft parts of the fly had been dissolved indicated that it had remained in the middle ear cavity for some length of time. Dr. Caston dried the ear, blew in equal parts of iodol and boracic acid, and the discharge ceased from that day. The opening in the drum membrane closed and the hearing was soon restored to normal.

Prognosis in Neurasthenia.

Dr. Landon Carter Gray, in a communication published in the *N. Y. Med. Journal*, Oct. 20, 1888, states with regard to the prognosis in neurasthenia that it is variable in each of the forms. The purely reflex form will end in recovery, as a rule, when the reflected cause is removed. The lithæmic form will vary in prognosis according to the severity of the nervous symptoms and the time of the year when the first symptoms show themselves. If the nervous symptoms are slight, the recovery is usually speedy. If the nervous symptoms are severe, and especially if the vertigo is marked, the duration of the disease may be prolonged through a year, even with treatment, and the vertigo may last several years. Relapses are not infrequent. Warm weather, he says, has a markedly unfavorable influence upon the nervous symptoms—so much so that he has never known severe nervous symptoms, beginning in the spring or early summer, to disappear until cold weather made its appearance. The simple form of neurasthenia, he states, has usually an excellent prognosis if radical treatment is adopted; otherwise recovery is a matter of chance, and he has known cases which he believed to be of this form pass into a gradual and fatal exhaustion. Dr. Webber states that marked disturbance of the arterial tension is of evil prognosis, and *vice versâ;* but Dr. Gray has not as yet been able to test this point himself.

Supposed Case of Hydrophobia.

A boy named Joseph Stephenson, aged 12 years, died on December 12, 1888, from supposed hydrophobia. On October 24, the boy saw a dog lying on a neighbor's door-step and walked up and patted it. The dog then snapped at the boy and bit him on the lip and cheek. The boy was taken to a neighboring drug-store, where the wound was immediately cauterized with nitrate of silver, and the boy went home.

Two days later, Dr. Thomas S. Sozinskey was called in, and found Stephenson's face much swollen and the wounds inflamed. Under treatment the boy apparently became well, the wounds having healed in about ten days. On Dec. 9, he became sick, restless and feverish, and on Dec. 12, when Dr. Sozinskey saw him again, Stephenson was suffering from fever and was excitable.

At this time the symptoms, the doctor said, pointed decidedly to hydrophobia, and they became more marked as the day advanced. That evening the boy was in a violent state of feverish excitement, he frothed at the mouth, and had desperate spells of asphyxia, during one of which he died.

All efforts to find the dog, or to ascertain whether it was suffering from rabies at the time it bit the boy, have been unavailing.

In investigating the case it was learned from the boy's brother, who saw the biting, that immediately afterward some men drove the boy away from them saying that he would have hydrophobia, and that if he bit them they would go mad too.

Experiments With Creolin.

Michael Pleskoff communicates to the *Therapeutische Monatshefte* some therapeutic experiments with creolin, which he made in the wards of Prof. Jurasz, in Heidelberg, in cases of chronic rhinitis, ozæna, and dry pharyngitis. He made use exclusively of a one per cent. watery solution of creolin and employed it in 15 cases. The results obtained were so favorable that the author most warmly commends it for further trial. In chronic rhinitis with or without fetor, tampons of cotton were dipped in the creolin solution, very gently squeezed out, and introduced deep into each nasal chamber by means of a sound. The tampons were allowed to remain about twenty minutes. During this time the patients felt a slight burning, which, however, soon passed away upon removal of the tampon. Unpleasant symptoms were never observed. The favorable effect of the creolin showed itself in a comparatively short time by the qualitative and quantitative change in the secretion. The quantity of the discharge diminished and its purulent character gave place to a more normal secretion of mucus. It exercised an especially good influence upon the troubles present in ozæna. It caused the disappearance of fetor more quickly and completely than had been effected with carbolic acid. Formation of crusts also ceased, and the secretion of the mucous membrane became normal. The results were not less favorable in the so-called dry pharyngitis, in which affection the tampons were pushed through the nose to the nasal fossæ, so that, by hanging down, they came in contact with the mucous membrane of the pharynx. The rest of the mucous membrane of the pharynx was swabbed with a pledget of cotton wet with creolin solution, and held in place with forceps.—*Wiener med. Presse*, Nov. 4, 1888.

On Special Service.

Very nearly twenty years ago a brilliantly aggressive member of the Massachusetts Medical Society asserted that specialists were the officers, and general practitioners the rank and file, of the profession. This sentiment was by no means heartily re-echoed at the time, the medical specialist being then a comparative rarity, and the "rank and file" largely in the majority. Nor has this assertion, it is safe to say, found more favor in the later years, although the specialists have greatly increased in number; for, with the subdivision of labor, and the exploration of hitherto comparatively unknown regions of research, there has come a sense of interdependence and community of interest, which is a most valuable and wholesome thing in either an army or a brotherhood, and from which springs naturally an appreciation of the necessity for community of knowledge.

To carry out the military simile in another form, while the general practitioners constitute the main body and strength of an army, the officers of which are all promoted from the ranks, the specialists form a skirmish line of volunteers going out in different directions to explore, to gather information, and, most important sequence, to report back to the main body the line upon which it may, after corroborative investigation, advance with safety.

One of the duties, therefore, of the specialist, and particularly of the specialist with material for investigation at his hand, is *to investigate;* and another of his duties is *to teach,* in so far as the gift of teaching has been given him, and to report as simply and as plainly as he can what he has learned; since the knowledge which he has acquired is not his, but is held in trust as the property of the main body of which he is one of the rank and file on special service.—*Boston Med. and Surg. Journal,* Nov. 22, 1888.

Army Medical Board.

An Army Medical Board will be in session in New York City, N. Y., from May 1 to 31, 1889, for the examination of candidates for appointment in the Medical Corps of the United States Army, to fill existing vacancies.

Persons desiring to present themselves for examination by the Board will make application for the necessary invitation to the Secretary of War, before April 1, 1889, stating the place of birth, place and State of permanent residence, and enclosing certificates based on personal knowledge from at least two persons of repute, as to American citizenship, character and moral habits. Testimonials as to professional standing, from Professors of the Medical College from which the applicant graduated, and of service in hospital from the authorities thereof, are also desirable. The candidate must be between 21 and 28 years of age, and a graduate from a *Regular Medical College,* evidence of which, his diploma, must be submitted to the Board.

Further information regarding the examinations and their nature may be obtained by addressing the Surgeon General, U. S. Army, Washington, D. C.

JOHN MOORE,
Surgeon General U. S. Army.

An Alumni Association of the University of Pennsylvania.

The graduates of the University of Pennsylvania residing in Maryland and the District of Columbia held a meeting December 14, and formed an association to be known as the University of Pennsylvania Alumni Association of Maryland and the District of Columbia. The association starts with a membership of 110, of whom 36 reside in Washington, 31 in Baltimore, and 43 in Maryland, outside of Baltimore. Dr. W. W. Johnston was elected President; Dr. R. Lorini, Secretary. The Faculties and the Board of Trustees of the University were represented at the meeting by prominent alumni from Philadelphia.

Philadelphia Polyclinic.

The Philadelphia Polyclinic is about to inaugurate a three months' Special Course in Ophthalmology, adapted to the needs of physicians who desire to pay special attention to ophthalmic practice. It will include systematic didactic instruction and quizzing, with three hours of clinical work daily. With the demand that exists for this kind of instruction, and the facilities this institution can offer, the course can be strongly recommended to physicians.

Association of Ex-Residents of the Pennsylvania Hospital.

The fourth annual meeting of this Association will be held in the Pennsylvania Hospital on Thursday, December 27, 1888, at 8 P.M. After a brief business meeting there will be a social reception and entertainment to renew and revive old friendships.

NEWS.

—Prof. Rummo, of Naples, editor of the *Riforma Medica*, has been appointed Professor of Clinical Medicine in the University of Sienna.

—Dr. Charles L. Minster died in Philadelphia December 14, it is supposed from the effects of an overdose of morphine, taken for the relief of pain.

—Dr. Henry F. Formad has resigned the position of Demonstrator of Morbid Anatomy and Pathological Histology, in the University of Pennsylvania.

—The epidemic of typhoid fever in Providence, Rhode Island, is increasing in gravity. The source of the disease is said to be the Pawtuxet River, from which the city derives its water supply.

—The stated meeting of the Lancaster City and County Medical Society was held at Lancaster Dec. 5. Interesting papers were read, and a memorial of the late Dr. D. I. Bruner was presented by Dr. Craig.

—Dr. Maurice N. Miller died in New York City Dec. 8. He was graduated from the Medical Department of the University of the City of New York in 1877, and for a time practised medicine in Philadelphia.

—Malignant diphtheria is reported to be raging along the line between Berks and Lancaster Counties, Pennsylvania. In some families two and three children have died, and even adults are afflicted with the disease. At Reamstown the schools have been closed.

—The *Boston Med. and Surg. Journal*, Dec. 6, 1888, says that the Gouverneur Hospital, New York, one of the smaller city hospitals, has been closed by order of the Commissioners of Charities and Correction, and the patients removed to Bellevue in order to permit a thorough disinfection and fumigation of the building; the house-staff, however, will remain on duty to attend to out-patients and to ambulance calls. Dr. Chalmers, the ambulance surgeon, contracted diphtheria some weeks ago from a dispensary patient, and since that time other cases of the disease have developed in the hospital. The attack of diphtheria was followed by pneumonia and endocarditis in the case of Dr. Chalmers, and little hope is entertained of his recovery. There is a proposition under discussion by the commissioners to abandon the old building entirely, and erect a new reception hospital in the neighborhood.

HUMOR.

THE UNCERTAINTIES OF LIFE.—Patient (to young physician)—"You say, Doctor, that I am well now, and that no further danger is expected?" Physician—"I apprehend none, sir; but life is uncertain." Patient—"Perhaps I had better pay your bill now." Physician—"Well, yes, sir, it might be as well; as I have said, life is very uncertain."

IN FRONT of the provision store of one McMahon, at Crescent Beach, near Boston, numerous squashes were displayed the other day. Rain-drops falling upon them from the electric-light wires so charged the vegetables with electricity that McMahon, in handling one of the squashes, received a severe shock. Other persons tried to pick up the squashes, with the same result.—*Ledger.*

A NERVOUS-LOOKING MAN went into a store the other day and sat down for half an hour or so, when a clerk asked him if he could do anything for him. He said no, he didn't want anything. She went away and he sat there for half an hour longer, when the proprietor went to him and asked him if he wanted to be shown anything. "No," said the nervous man, "I just want to sit around. My physician has recommended perfect quiet for me, and he says above all things I should avoid being in crowds. Noticing that you did not advertise, I thought that this would be as quiet a place as I could find, so I just dropped in for a few hours' isolation." The merchant picked up a bolt of paper cambric to brain him, but the man went out. He said all he wanted was a quiet life.

THE PRAYER-BOOK ON QUACK MEDICINE.—A Yorkshire man was very ill, but doggedly opposed to spending a penny upon the doctor. He had found, he thought, a more excellent way, and was accordingly conducting, with very alarming results, some experiments upon his constitution. "My dear Mrs. Blank," said the Vicar to his obstinate parishioner's wife, "your husband is really killing himself with those pills. It is a case of suicide—a downright sin." "Yes, sir," replied she, "and many's the time I've prayed against it in the Church service." "In the Church service?" said the Vicar doubtfully. "You mean when we pray for the sick?" "Oh, no, sir," was the reply; "I mean when we always say—in the Litany, isn't it?—'from all false doctoring, good Lord deliver us!'"—*Cornhill Magazine.*